

Figure 1-1 - Computer Power Delivery System

Traditional Technology

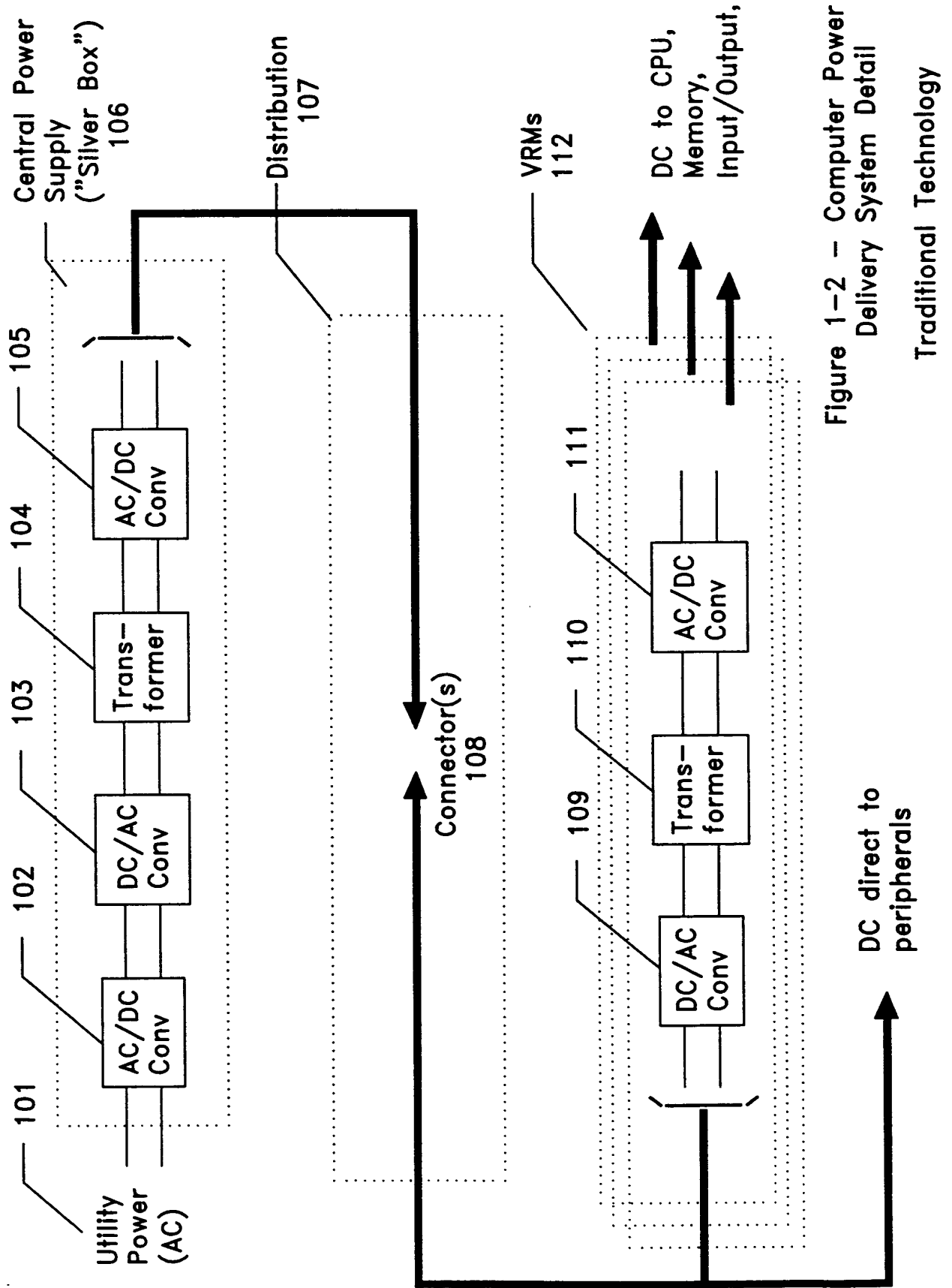


Figure 1-2 - Computer Power
Delivery System Detail
Traditional Technology

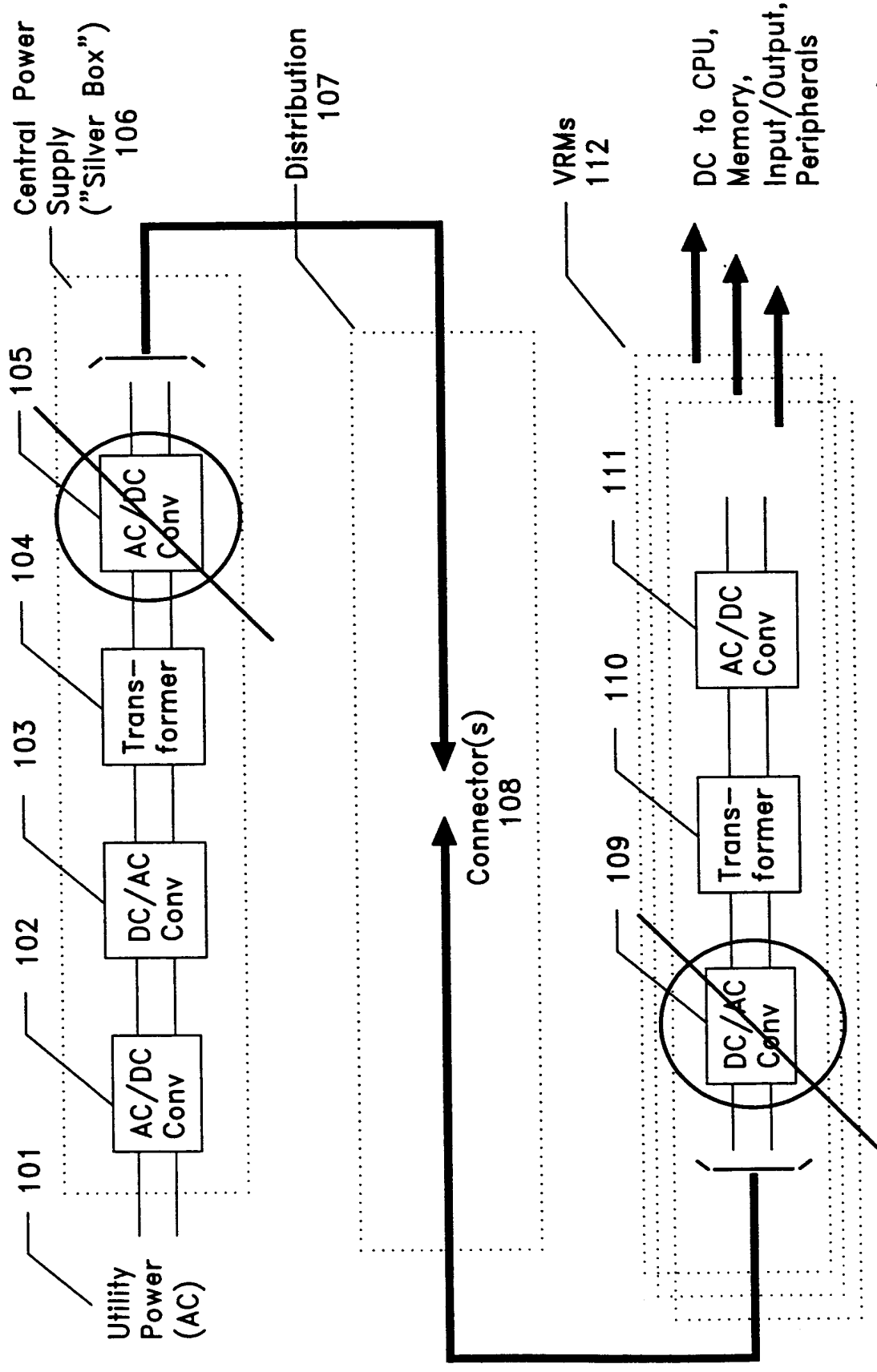
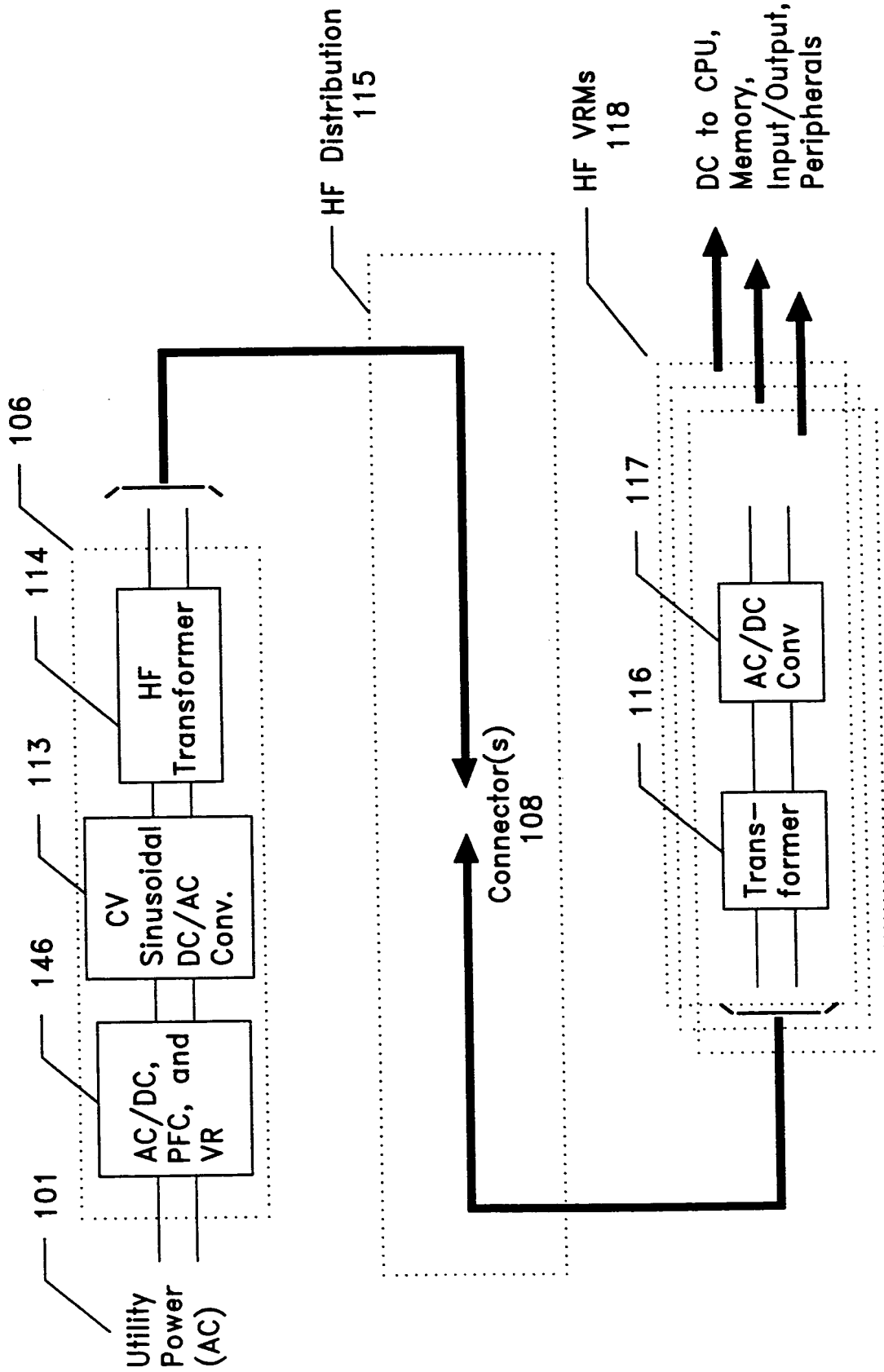


Figure 1-3 - Components eliminated by invention

Traditional Technology



Figur 1-4 - HFAC Power System

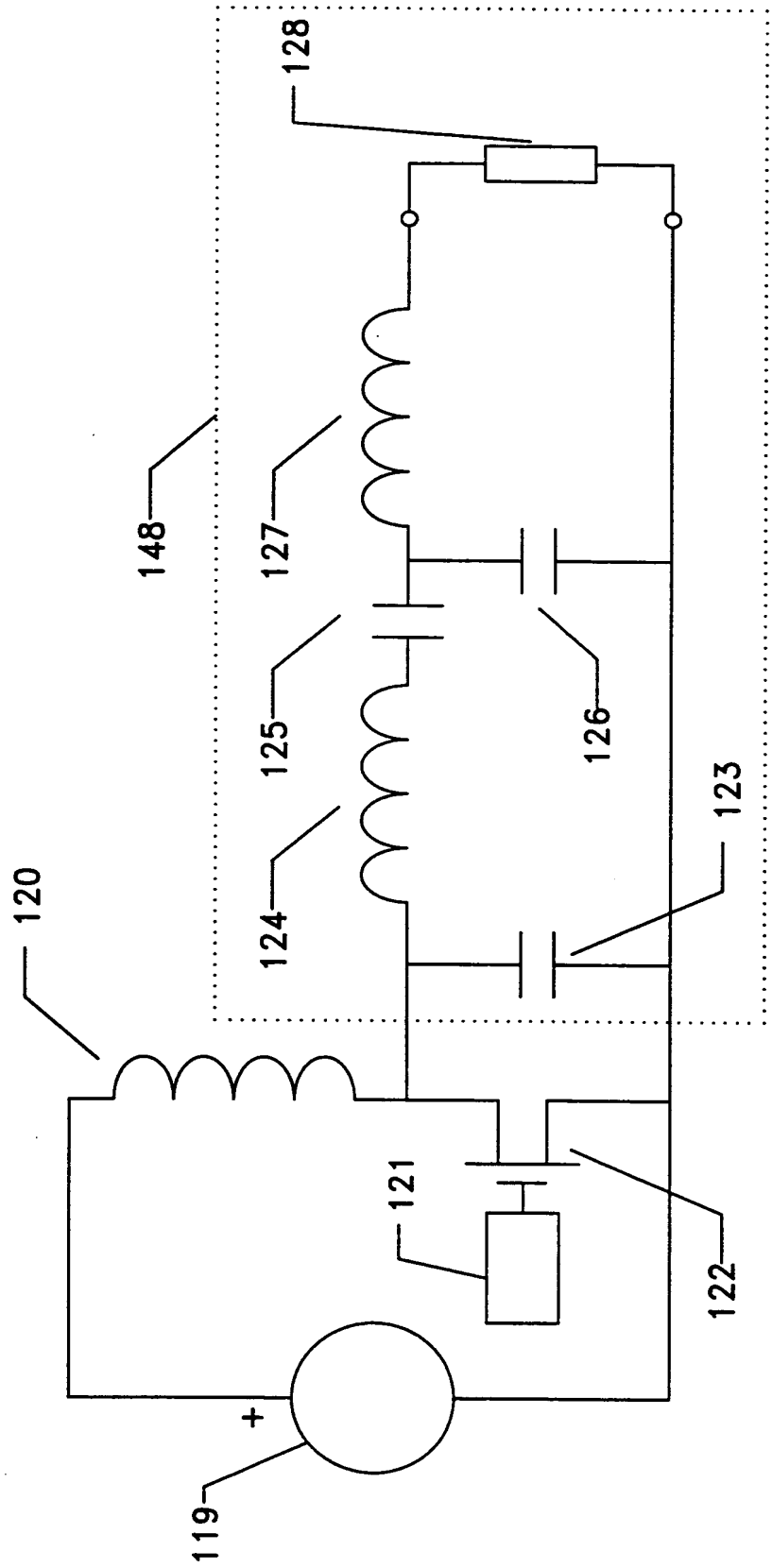


Figure 1-5 - High Frequency CV
Generator - non-resonant

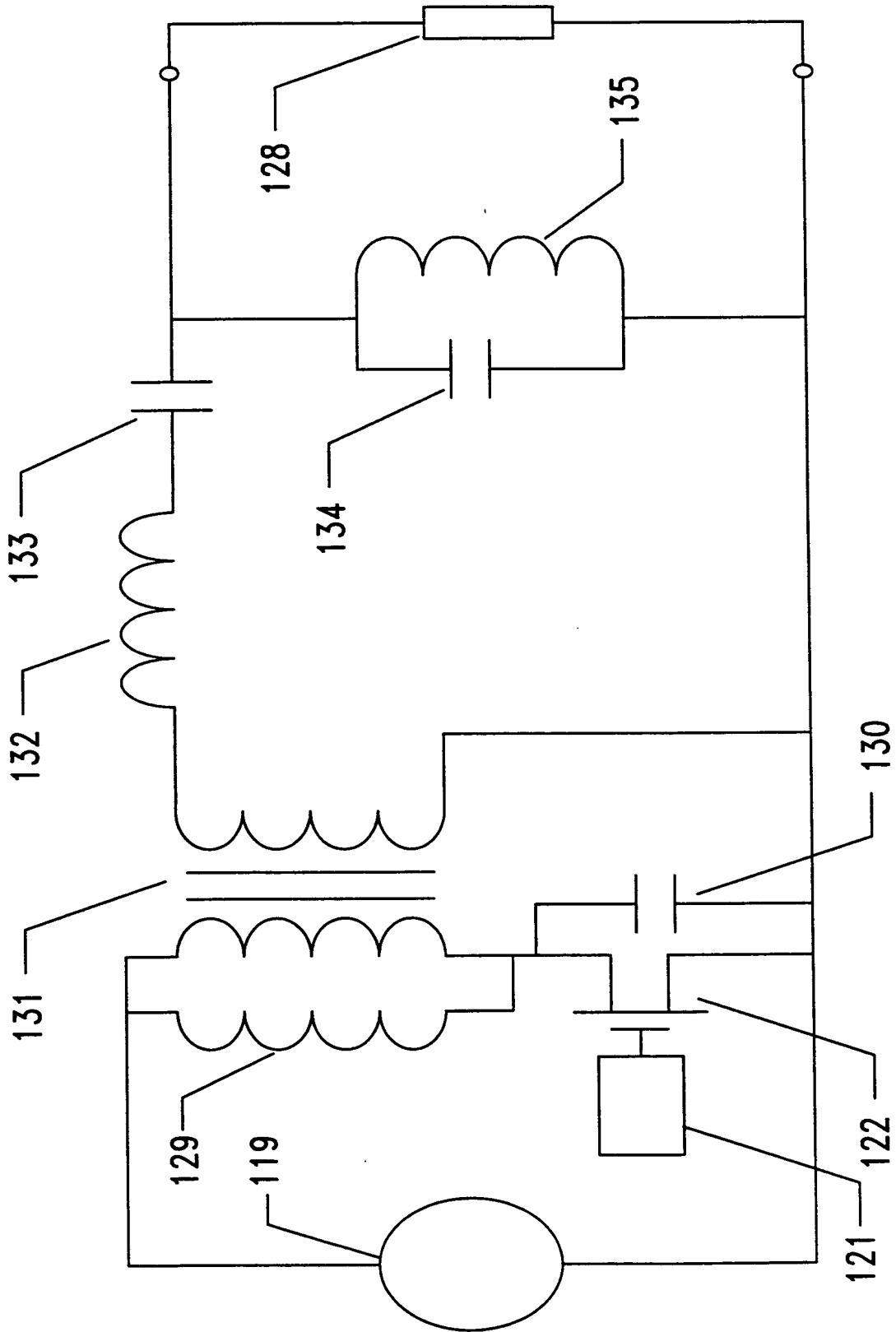


Figure 1-6 - High Frequency CV
Generator - resonant

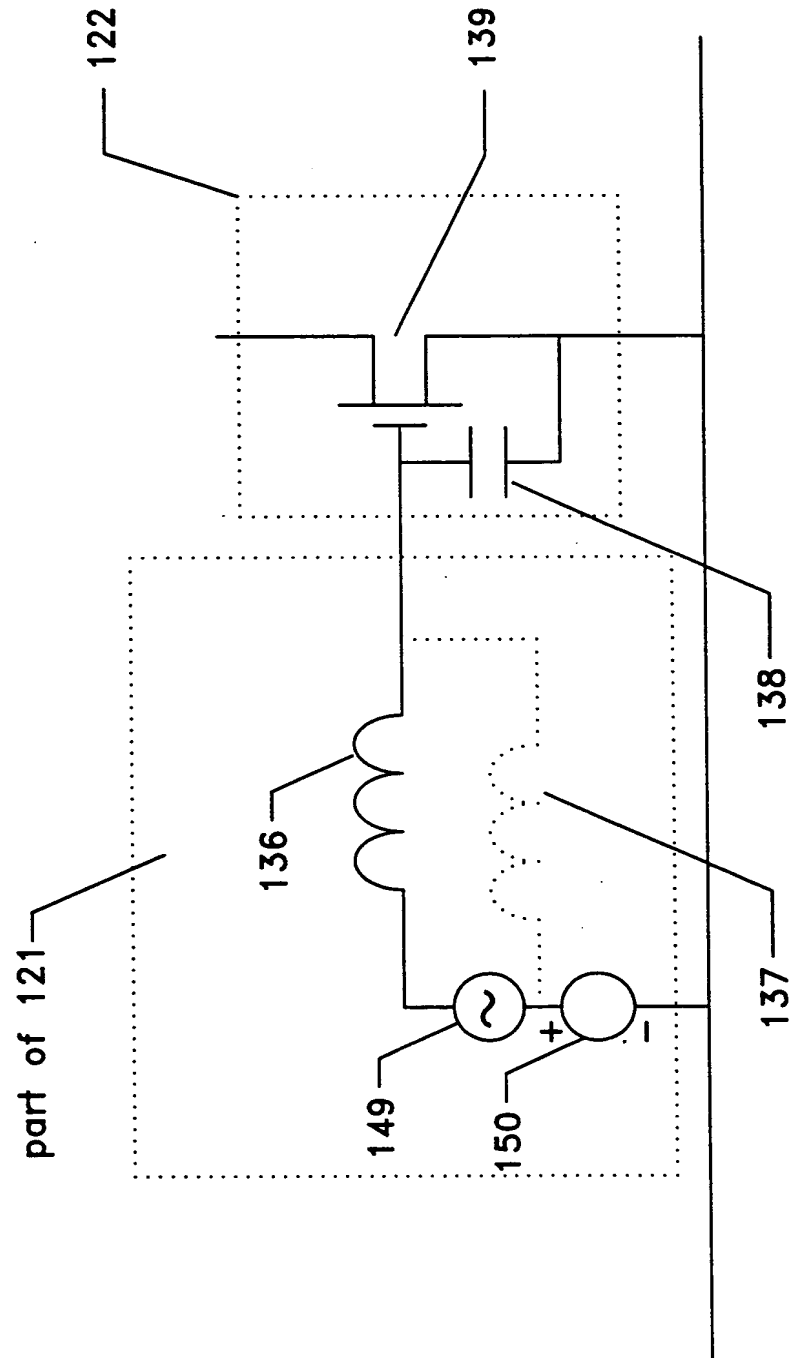


Figure 1-7 - Switch Drive Details

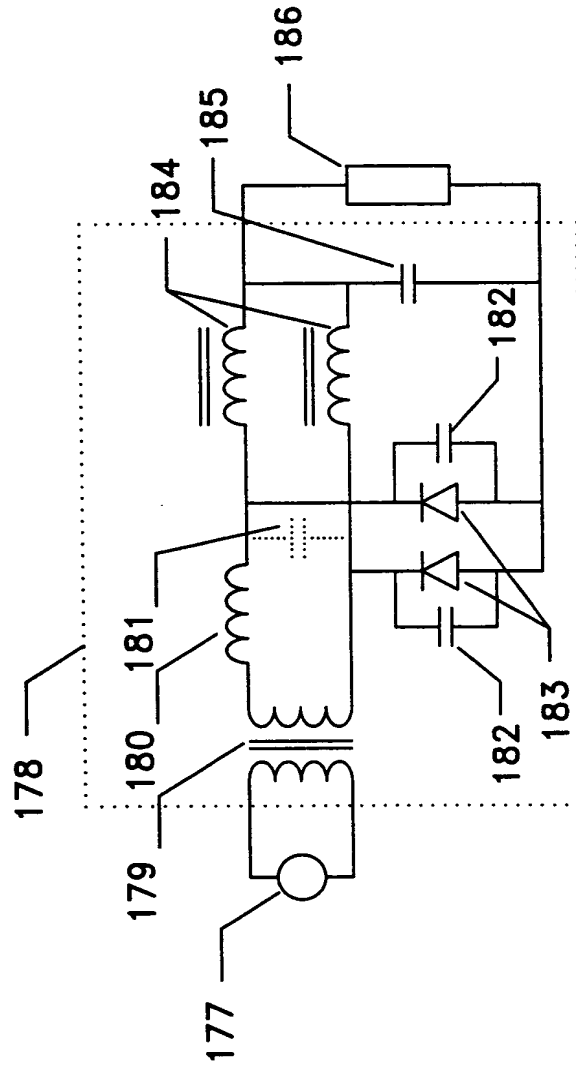
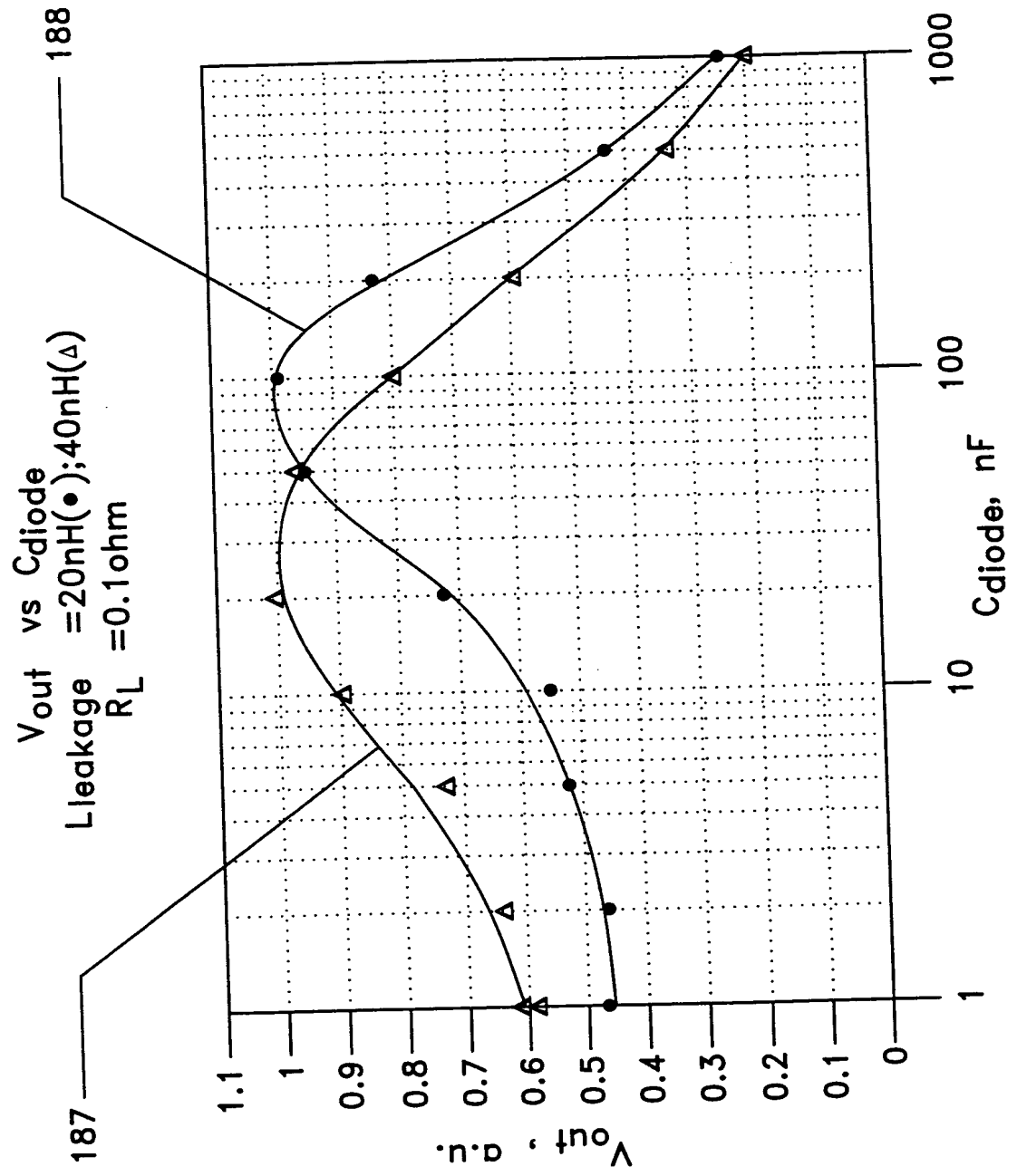
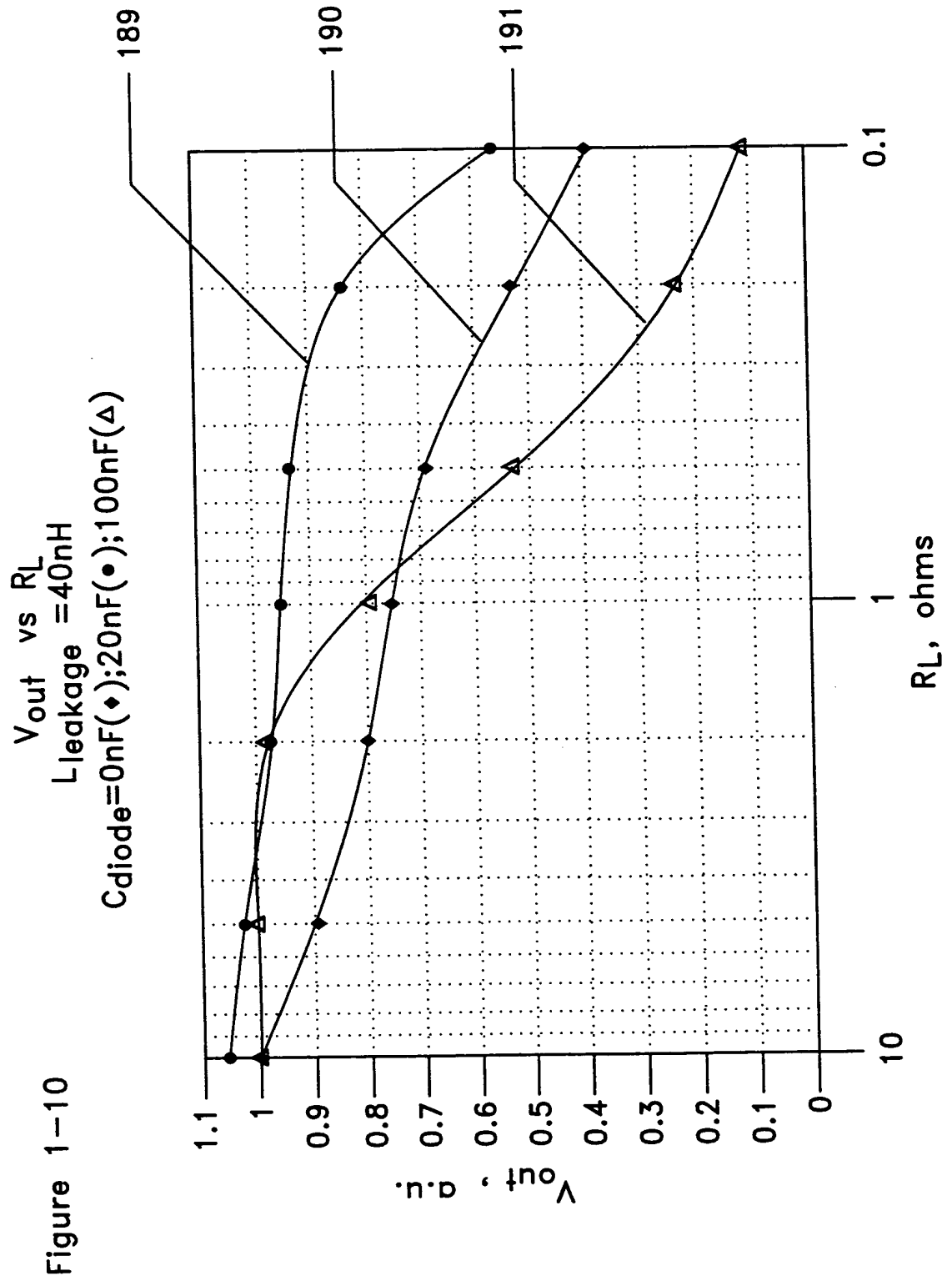
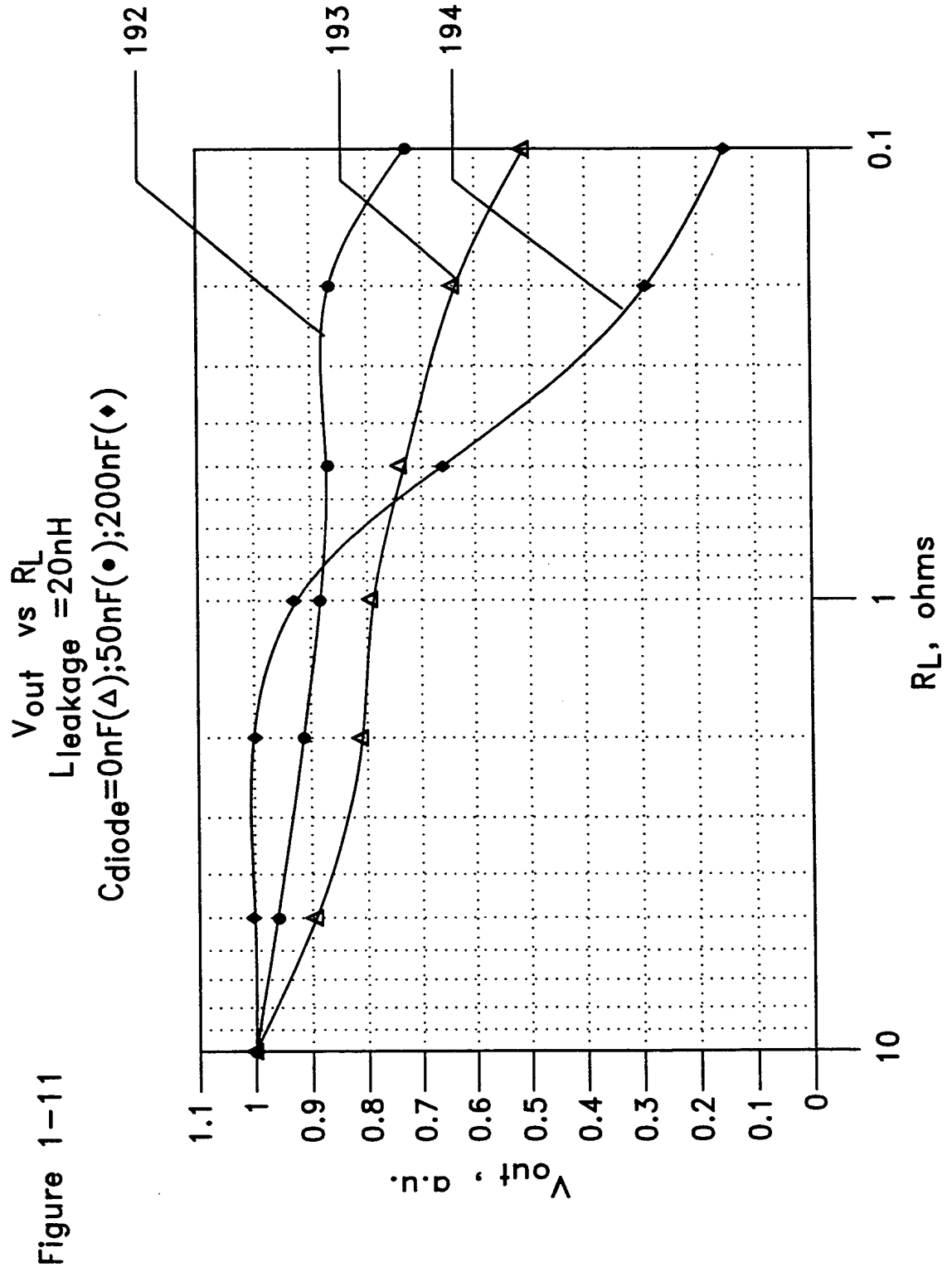


Figure 1-8 - Rectifier Circuit







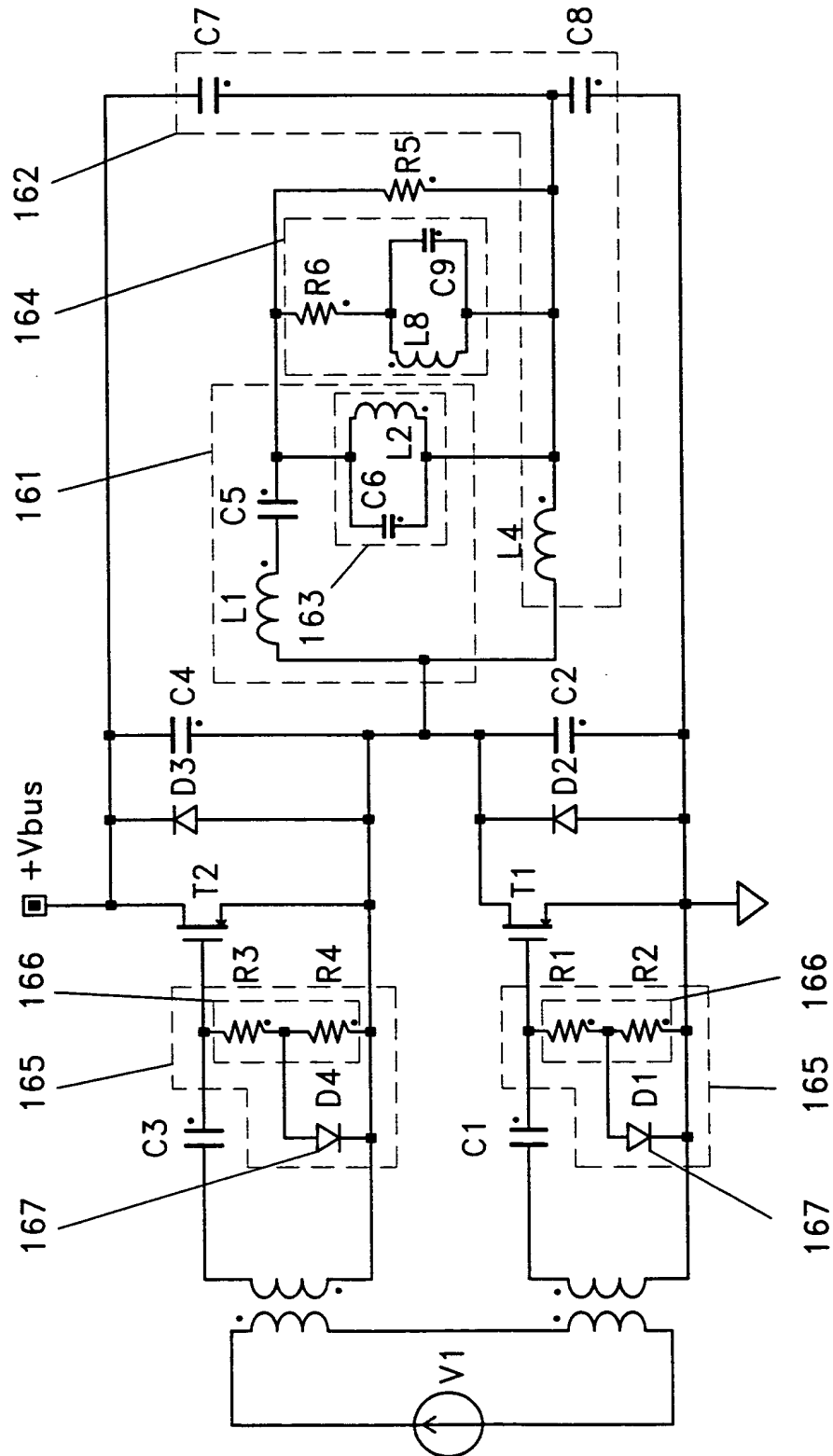
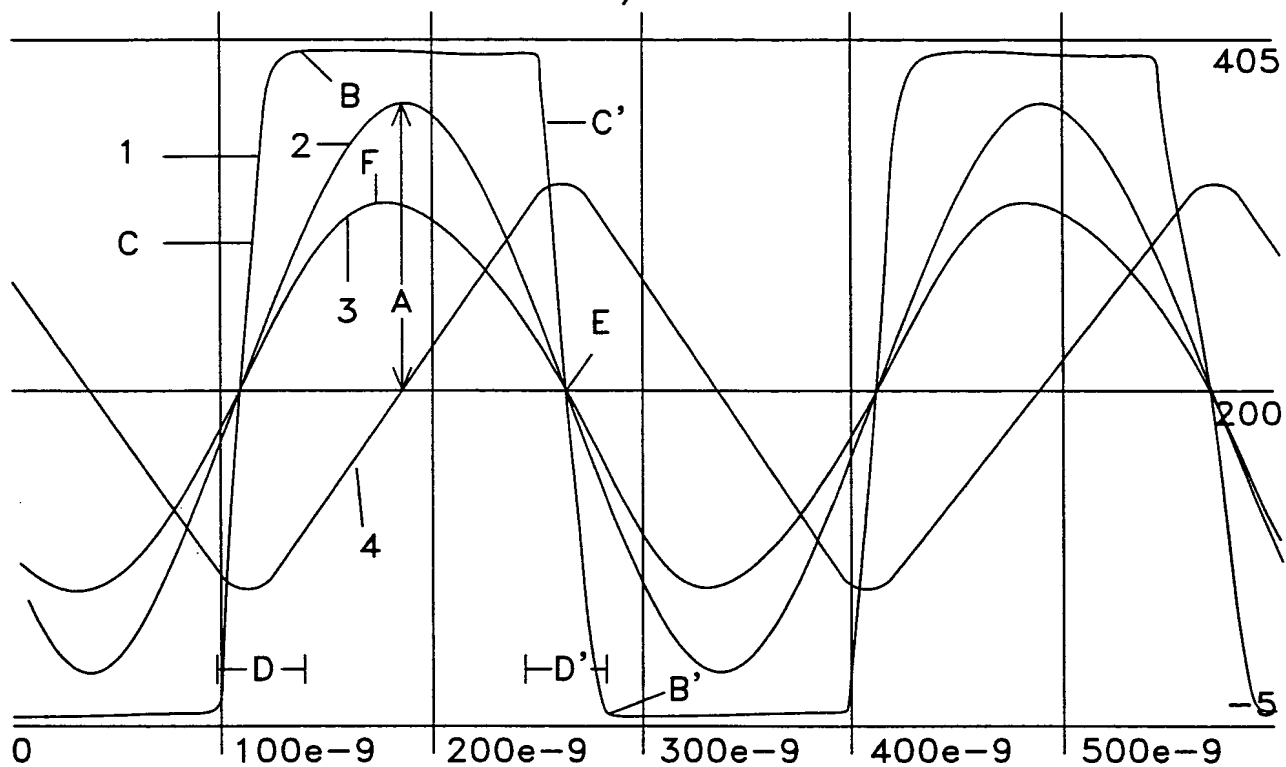
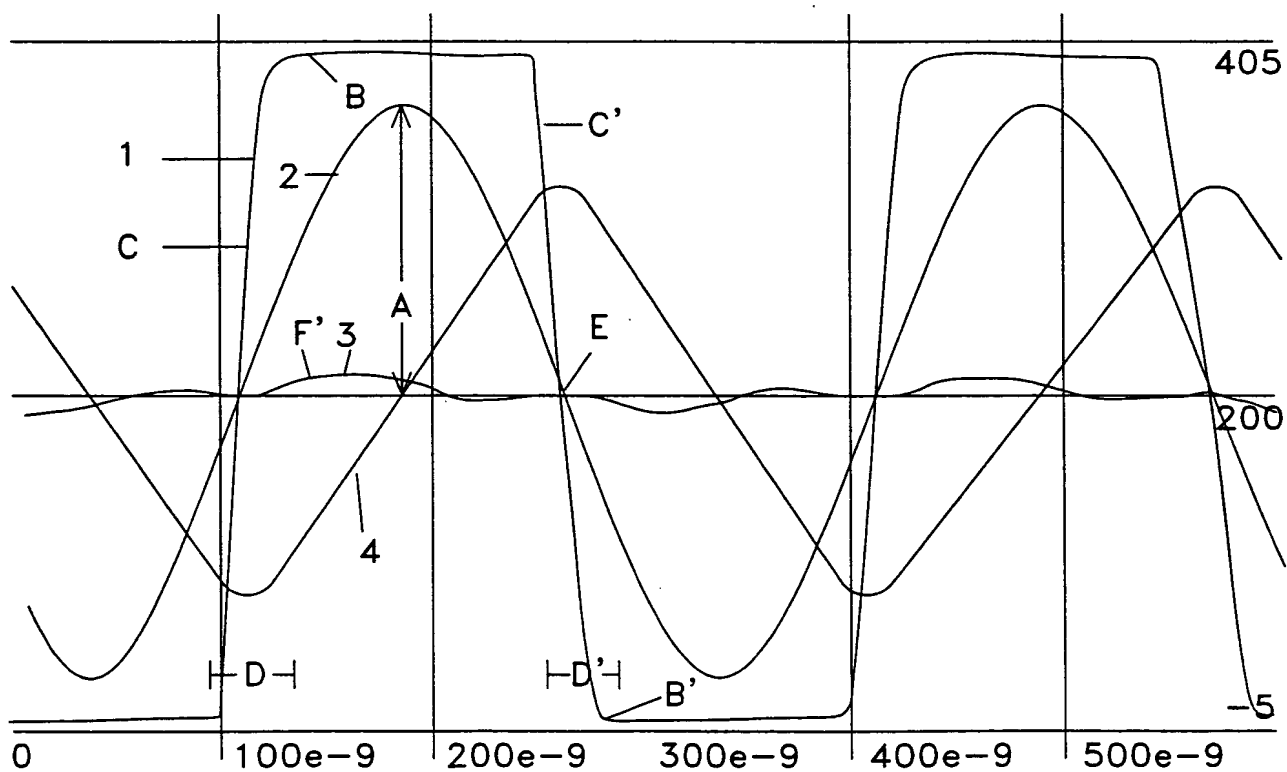


Figure 1-12



300 Watts Output

Figure 1-13



30 Watts Output

Figure 1-14

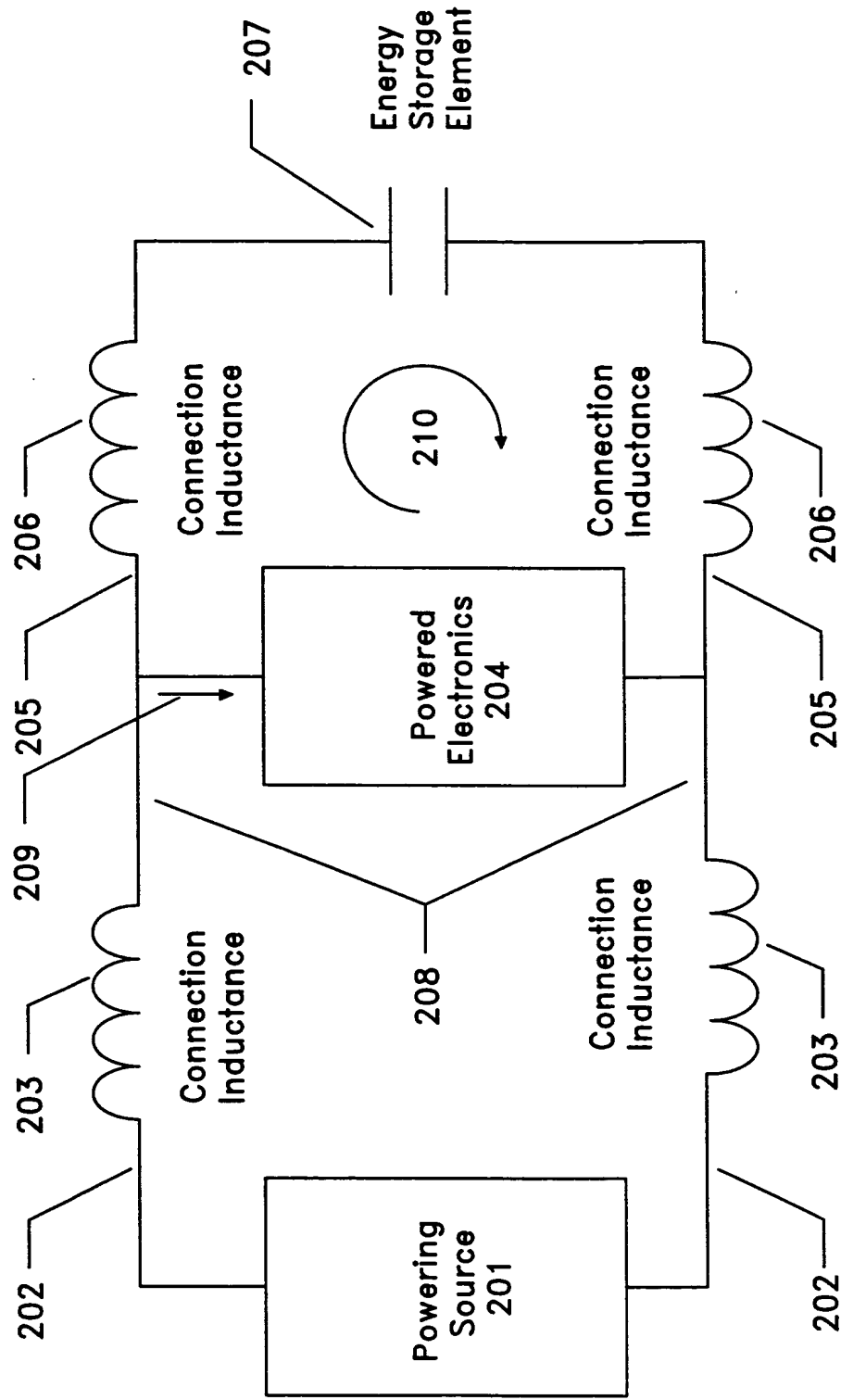


Figure 2-1 – Circuit for providing power to electronics

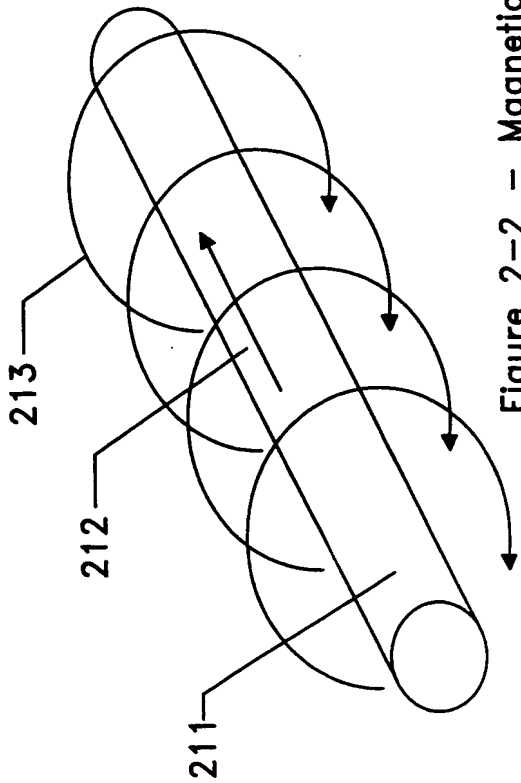


Figure 2-2 - Magnetic field around conductor in free space

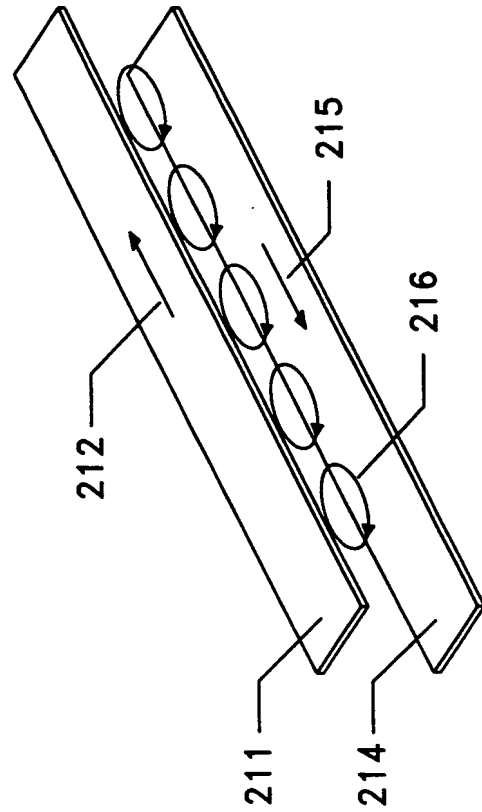


Figure 2-3a - Confined conductor

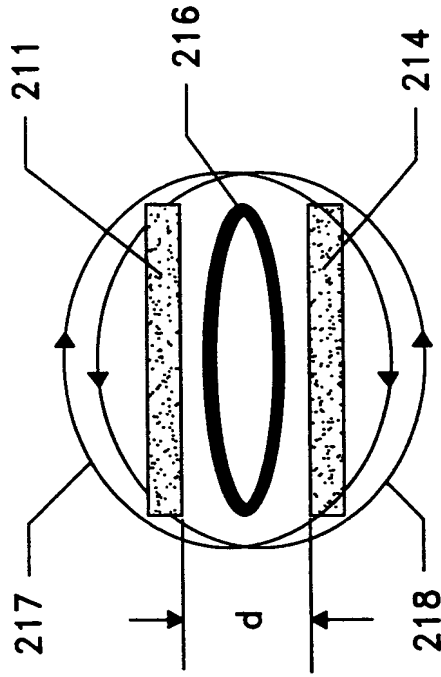


Figure 2-3b - Cross-section of conductors with field lines

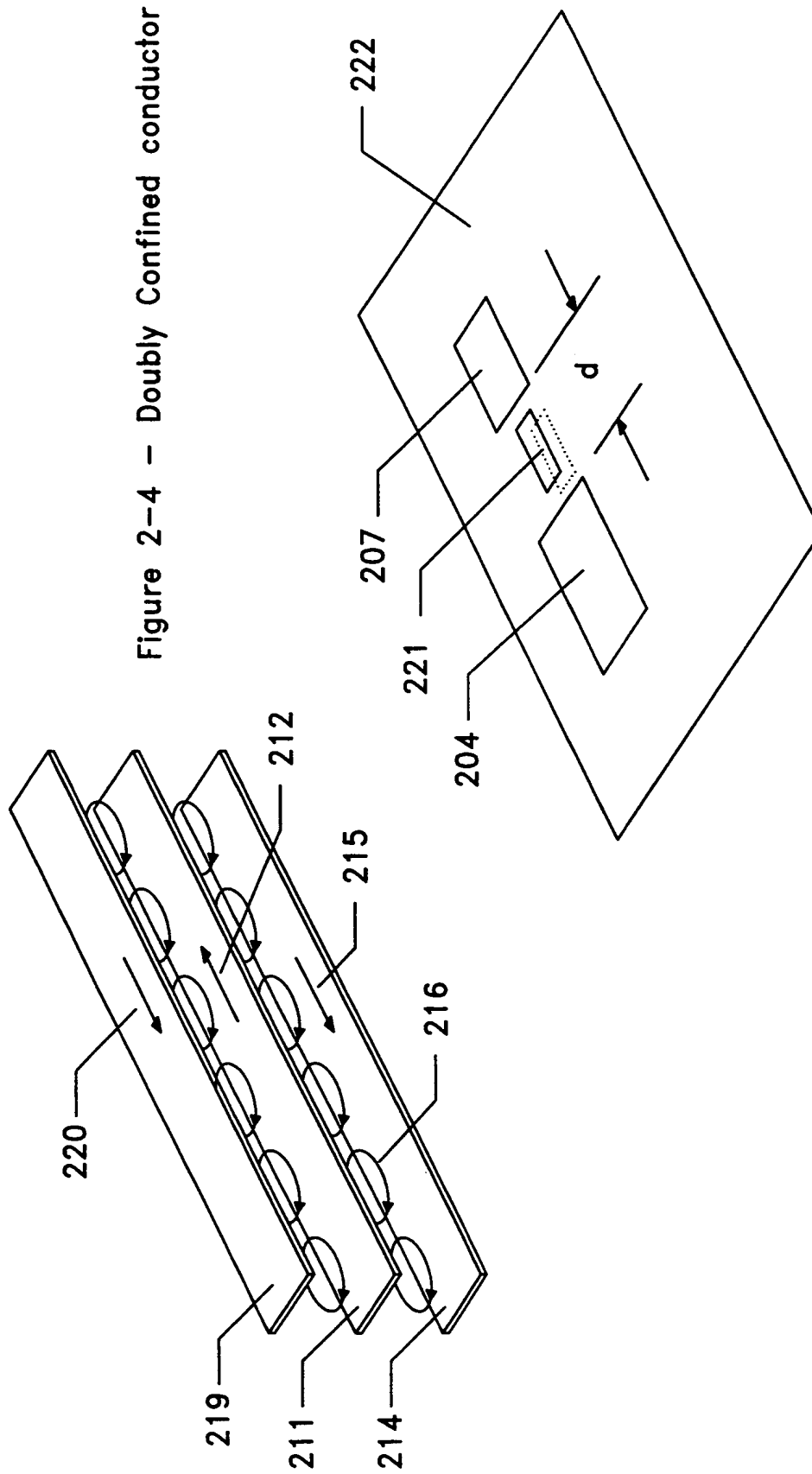


Figure 2-4 - Doubly Confined conductor

Figure 2-5 - Electronics with remote energy storage on Printed Wiring Board

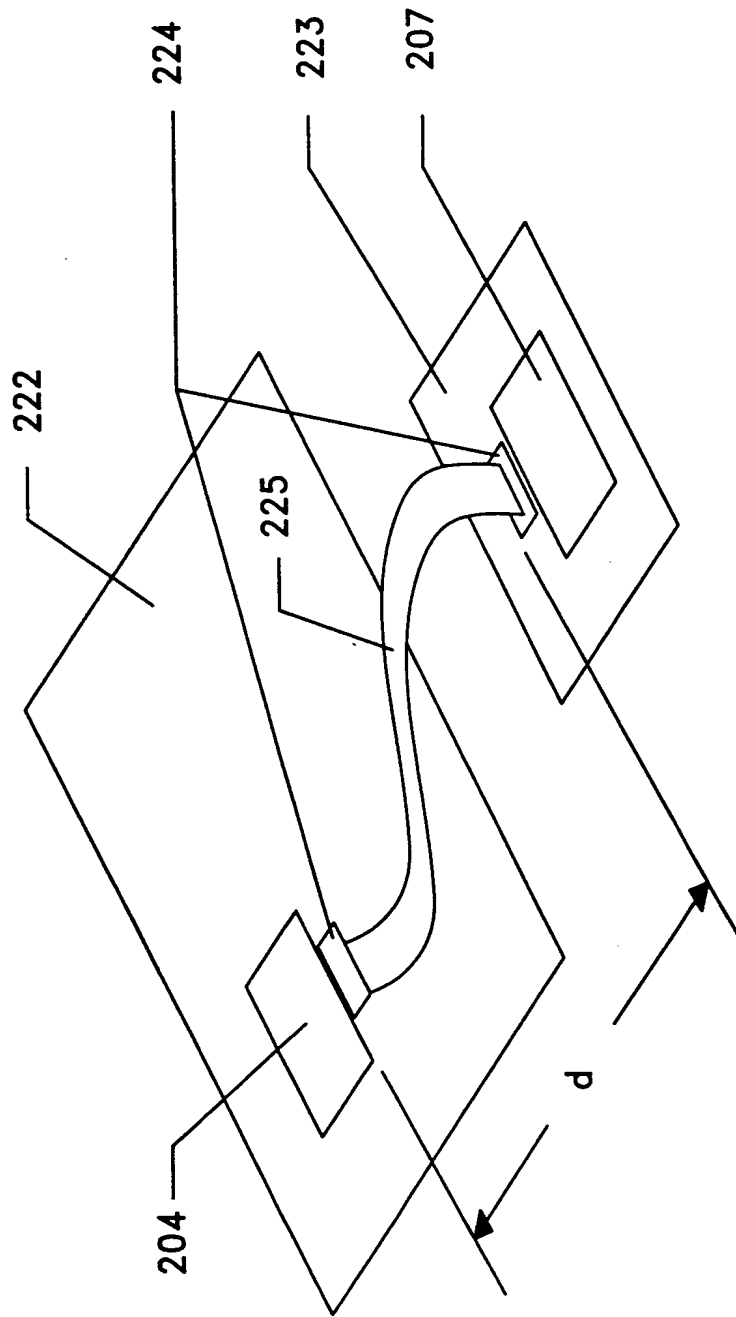


Figure 2-6 - Electronics with remote energy storage off Printed Wiring Board

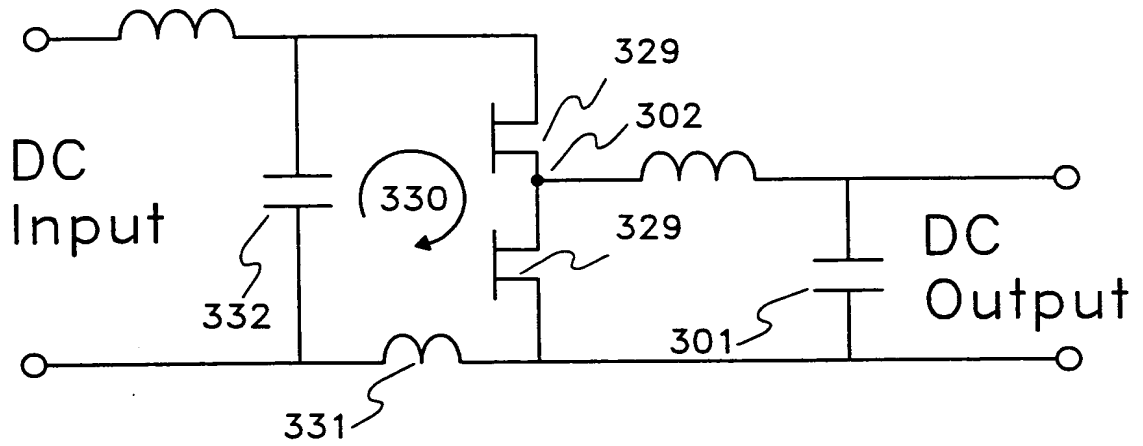


Figure 3-1 (Prior Art)



Figure 3-2 (Prior Art)

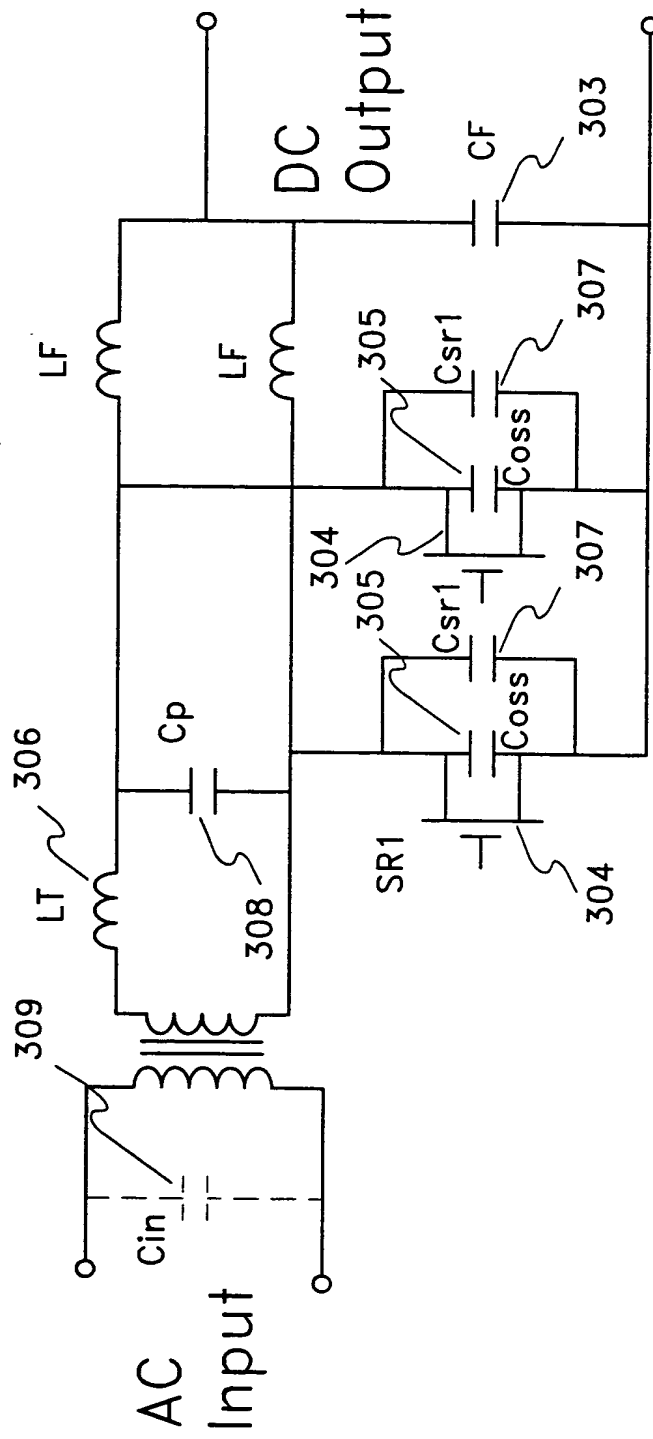


Figure 3-3

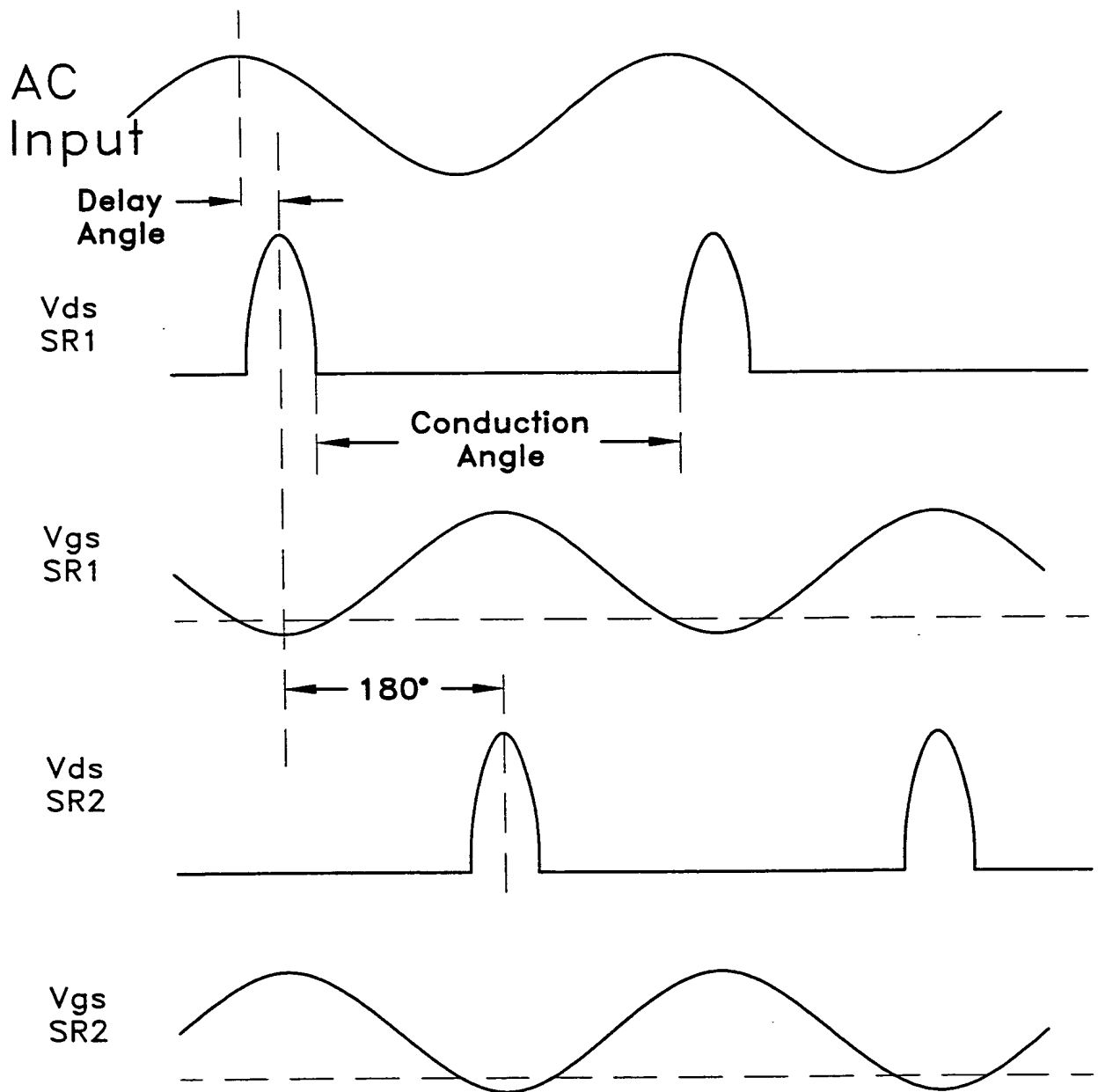


Figure 3-4

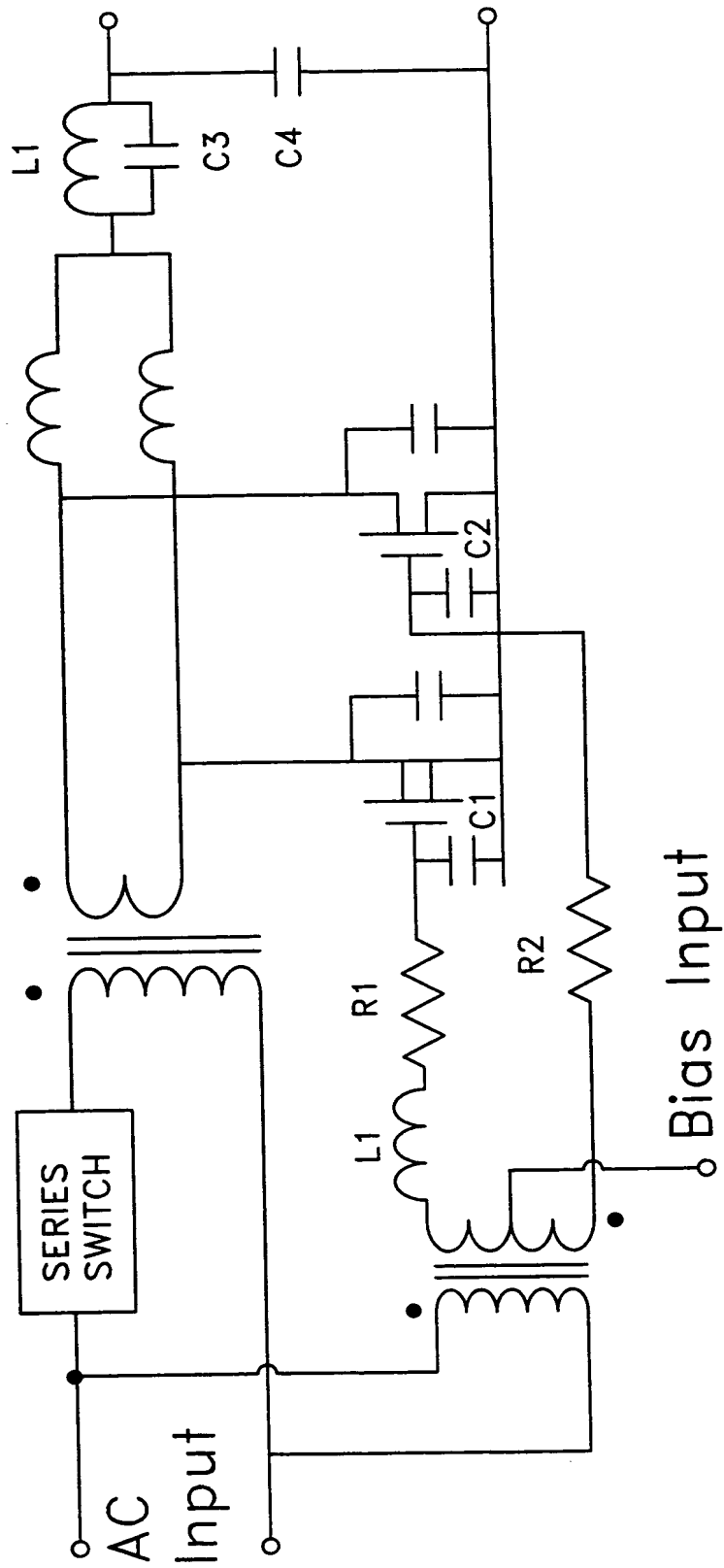


Figure 3-5

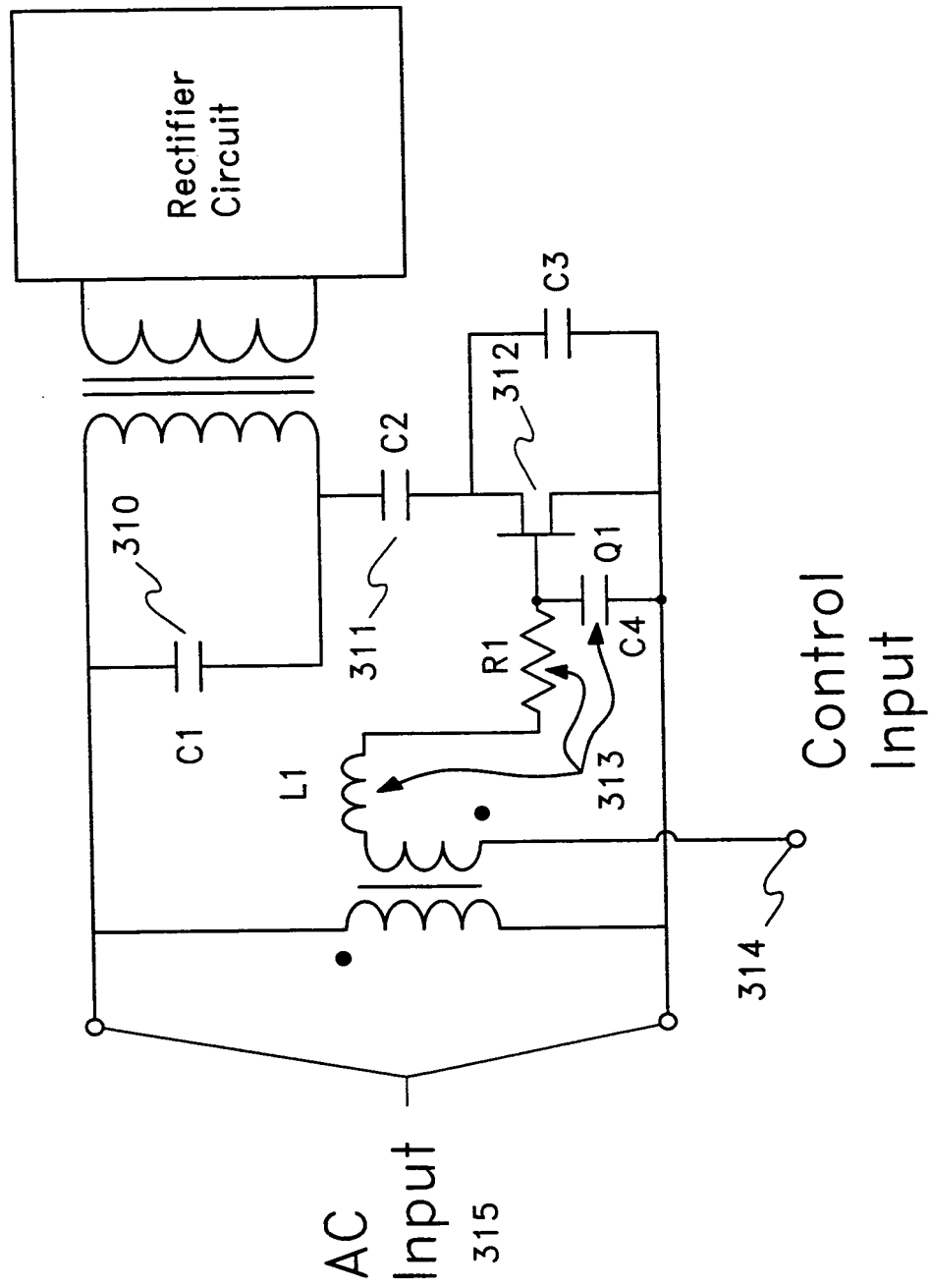
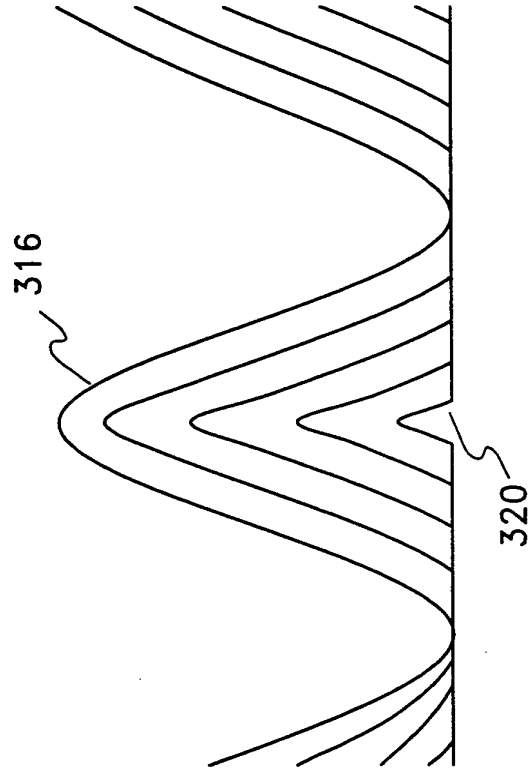


Figure 3-6



Vds on
Q1 Series
Switch FET

Figure 3-7

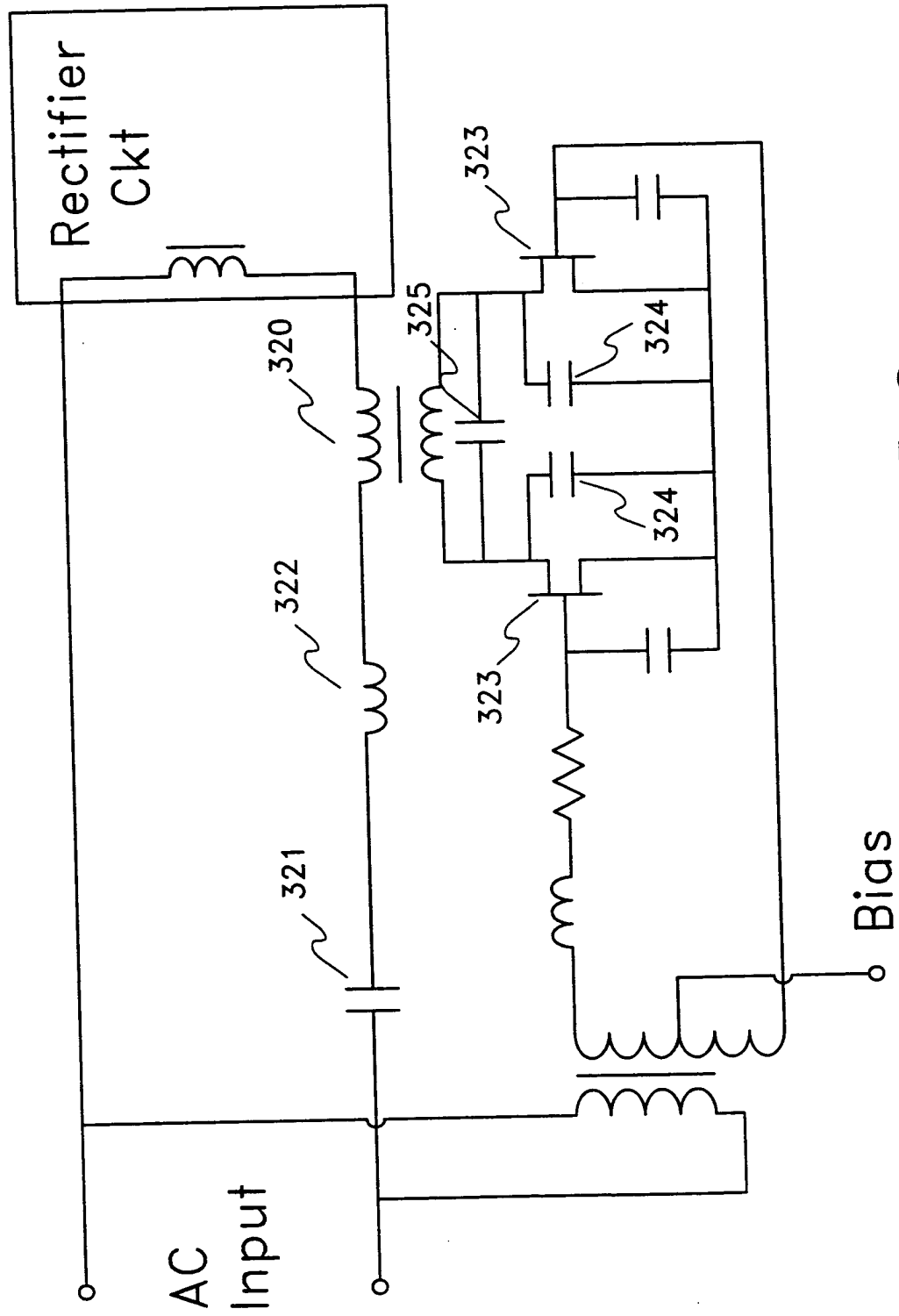
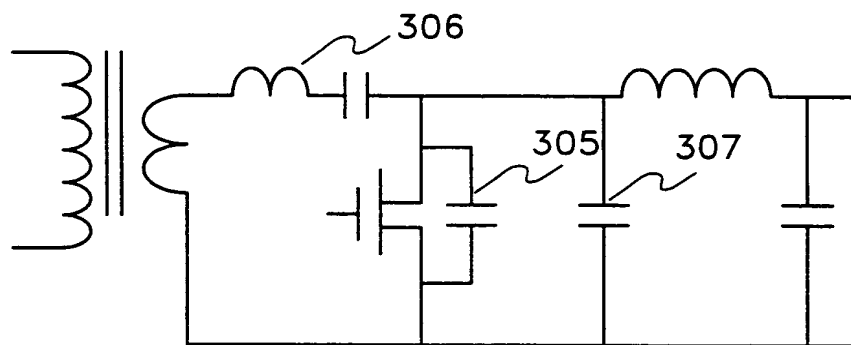
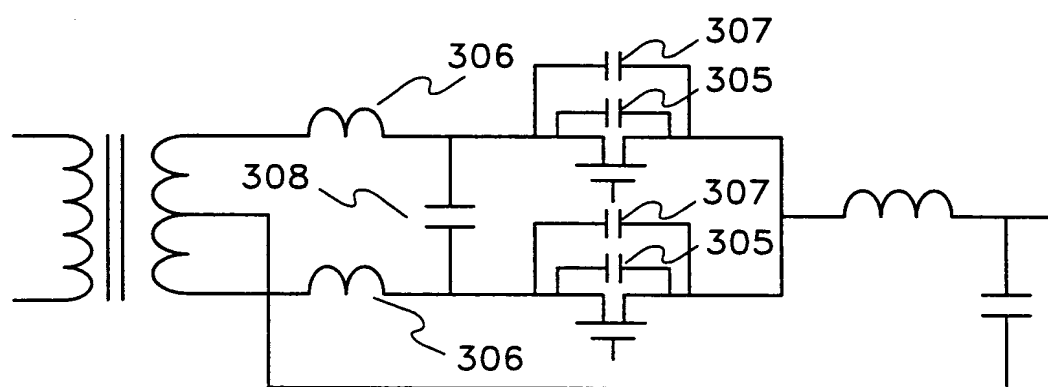


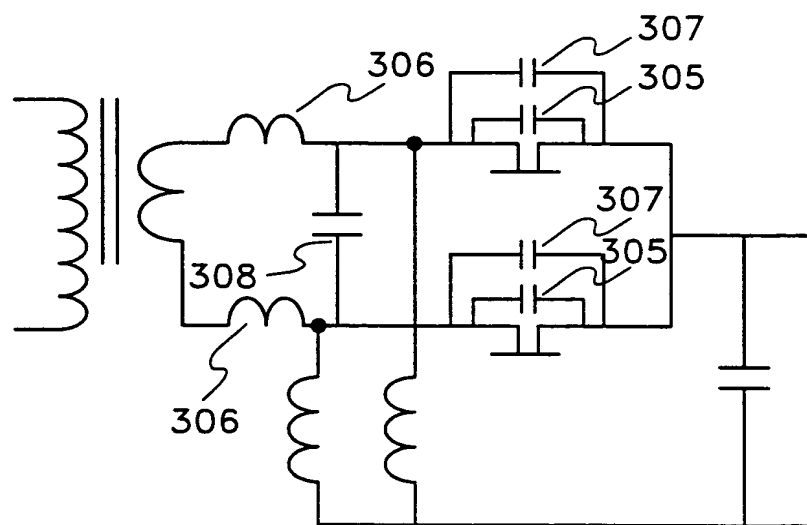
Figure 3-8



A



B



C

Figure 3-9

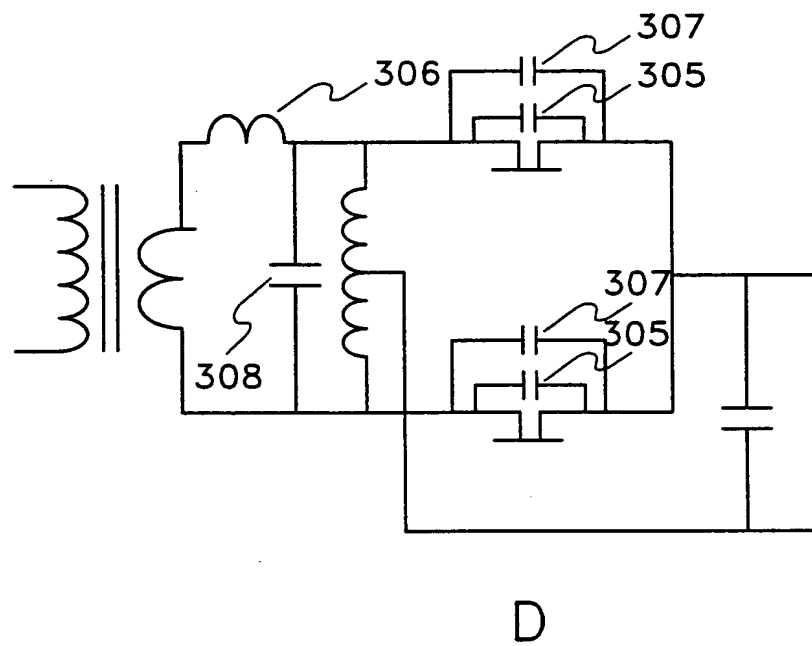


Figure 3-9

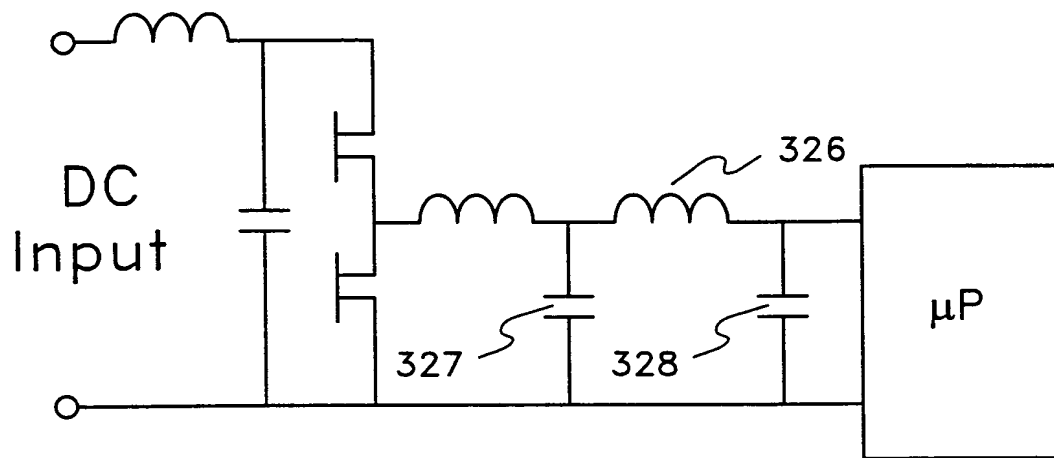
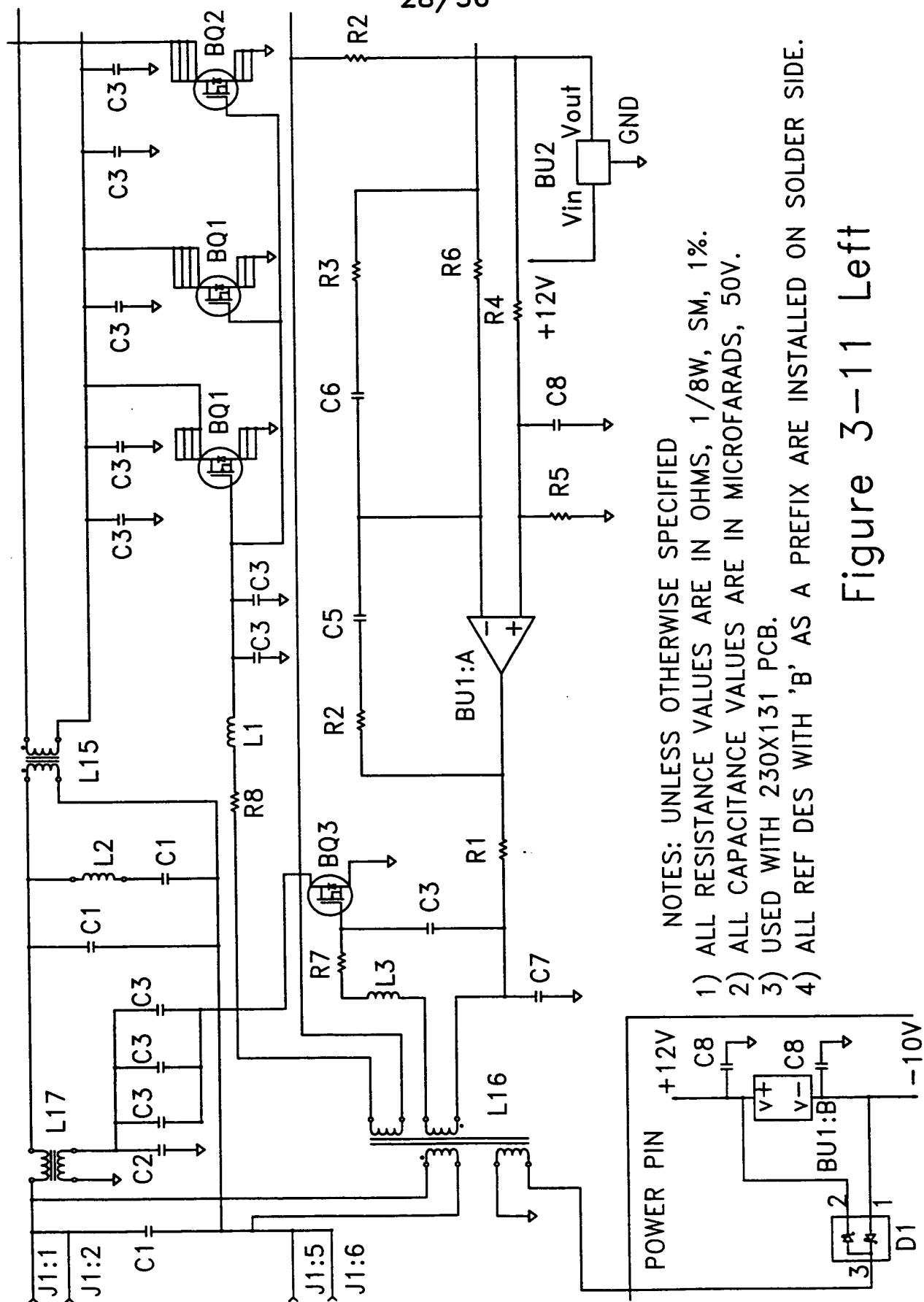


Figure 3-10



NOTES: UNLESS OTHERWISE SPECIFIED

- 1) ALL RESISTANCE VALUES ARE IN OHMS, 1/8W, SM, 1%.
- 2) ALL CAPACITANCE VALUES ARE IN MICROFARADS, 50V.
- 3) USED WITH 230X131 PCB.
- 4) ALL REF DES WITH 'B' AS A PREFIX ARE INSTALLED ON SOLDER SIDE.

Figure 3-11 Left

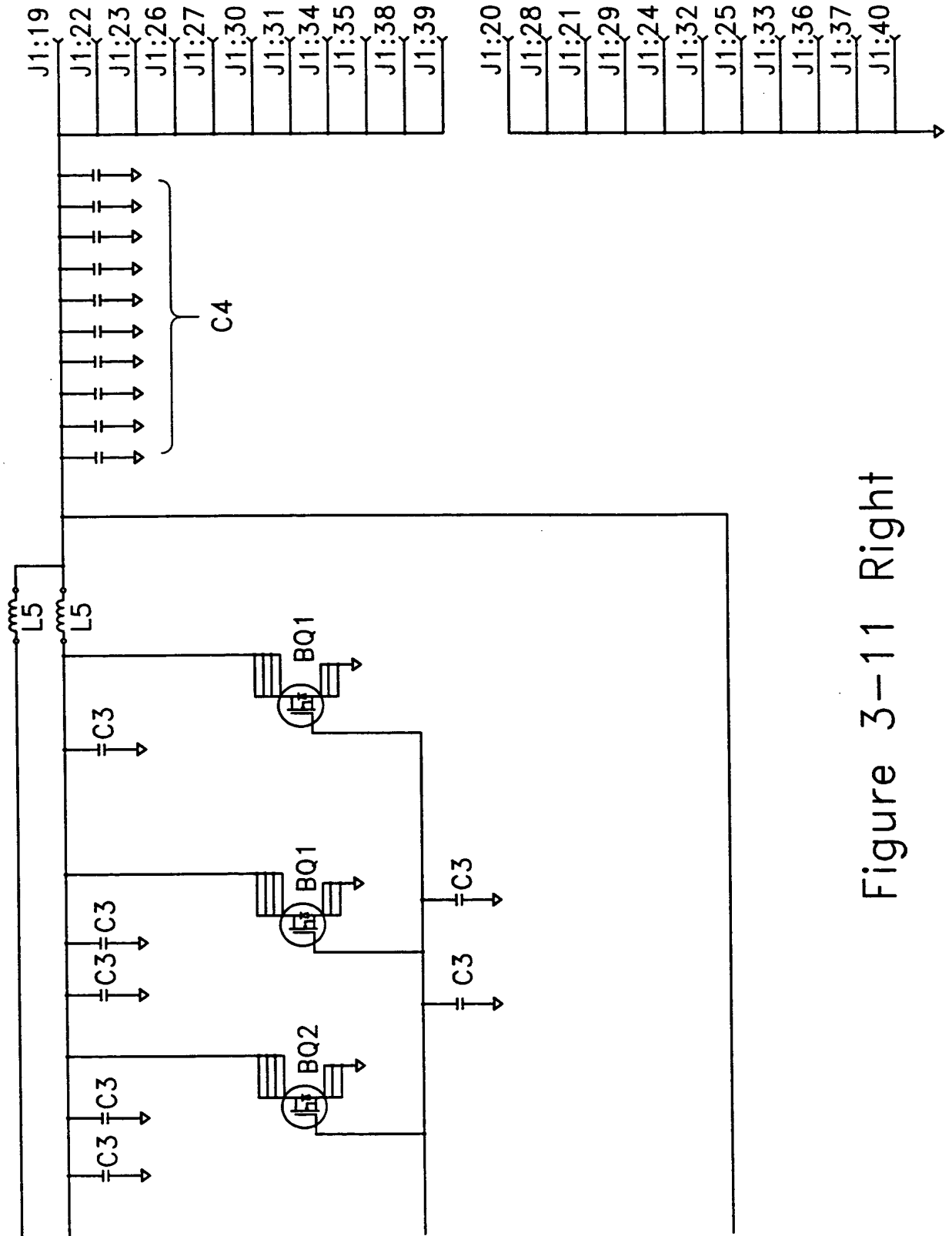


Figure 3-11 Right

Capacitors

C1	470PF	100V
C2	1000PF	100V
C3	2200PF	
C4	22PF	10V
C5	100PF	100V
C6	4700PF	100V
C7	5600PF	100V
C8	0.1	

Resistors

R1	124	
R2	10K	
R3	49.9	
R4	3.24K	
R5	1.82K	
R6	499	
R7	5.6	1/2W 5% SM
R8	0.1	1/2W SM

Inductors

L1	330NH
L2	No Value
L3	150NH
L5	100NH

Miscellaneous

BU1:A	AD825
BU1:B	AD825
BU2	AD1585

Transformers

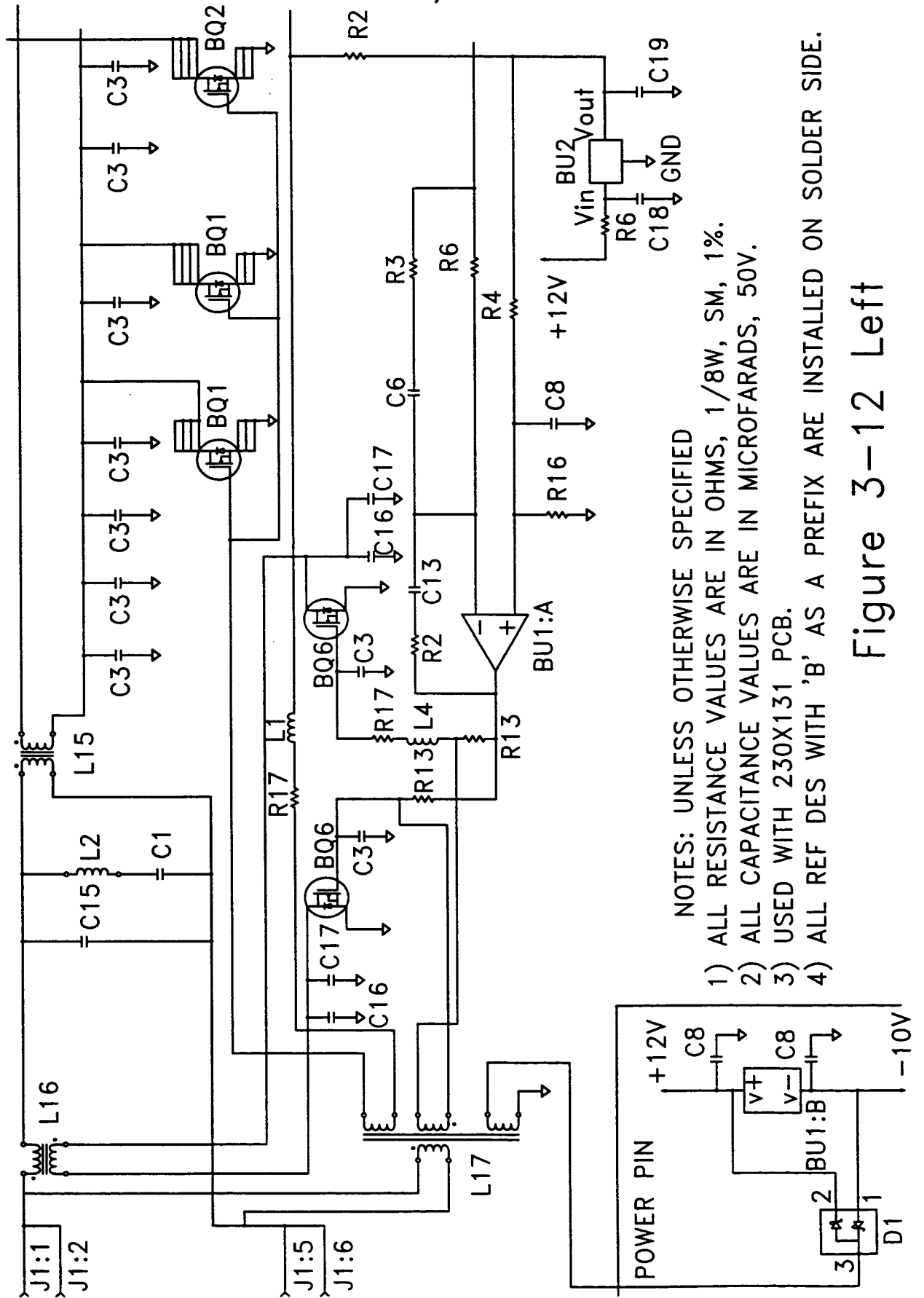
L15	TRANS	L2
L16	TRANS	L4
L17	TRANS	L6

D1	HSMS2802
----	----------

Transistors

BQ1	OPEN
BQ2	M14420T
BQ3	Q1 NOTEST

Figure 3-11 Values



NOTES: UNLESS OTHERWISE SPECIFIED

- 1) ALL RESISTANCE VALUES ARE IN OHMS, 1/8W, SM, 1%.
- 2) ALL CAPACITANCE VALUES ARE IN MICROFARADS, 50V.
- 3) USED WITH 230X131 PCB.
- 4) ALL REF DES WITH 'B' AS A PREFIX ARE INSTALLED ON SOLDER SIDE.

Figure 3-12 Left

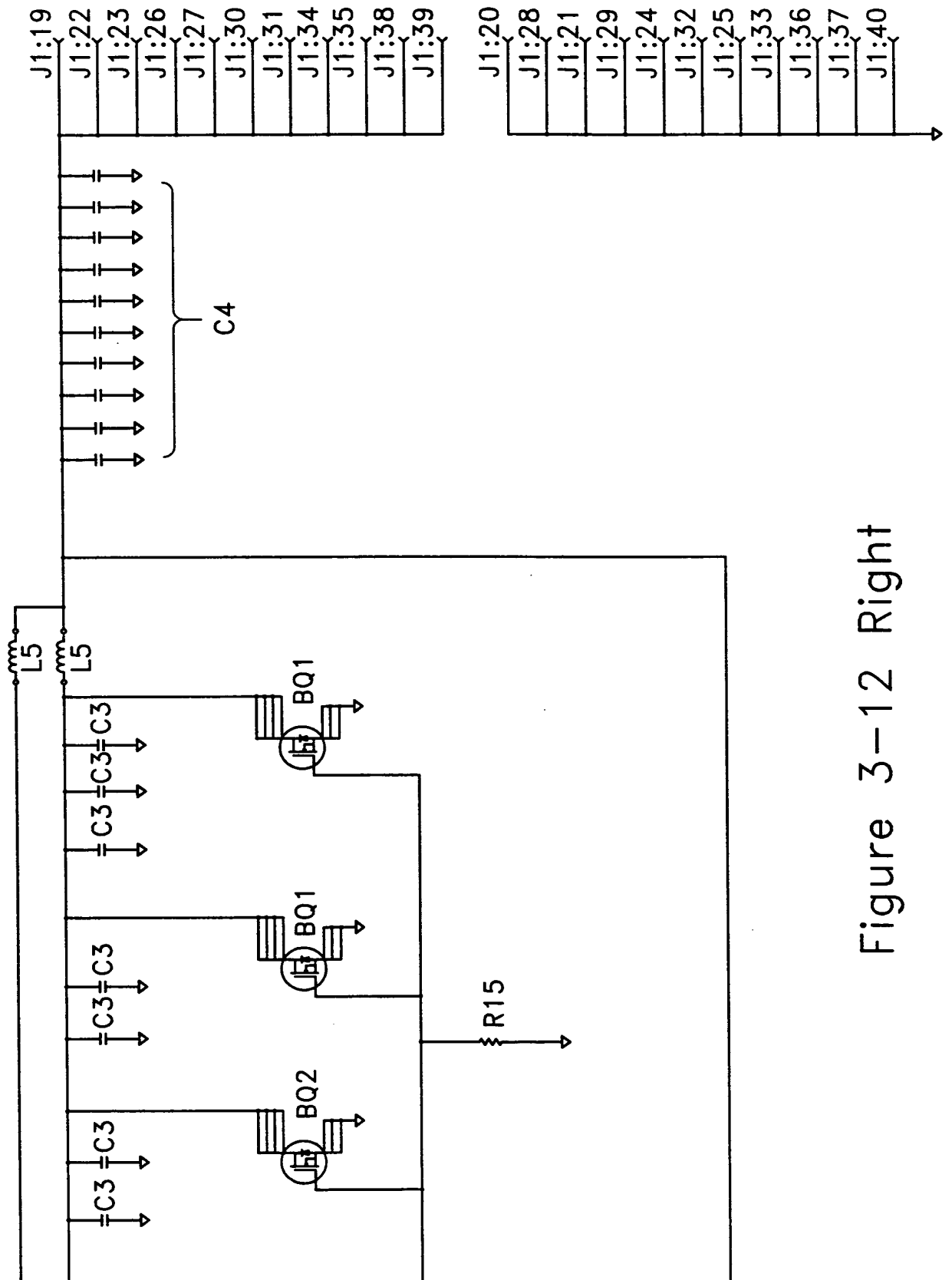


Figure 3-12 Right

Capacitors

C1	470PF	100V
C3	2200PF	
C4	22PF	10V
C6	4700PF	100V
C8	0.1PF	
C15	1500PF	50V
C16	2700PF	100V
C17	680PF	100V
C18	4.7uF	
C19	1uF	

Inductors

L1	330NH	
L2	No Value	
L4	OPEN	
L5	100NH	

Transformers

L15	TRANS	L2
L16	TRANS	L4
L17	TRANS	L6

Resistors

R2	10K
R3	49.9
R4	3.24K
R6	499
R13	100
R15	24.9K
R16	1.82K
R17	OPEN 1/2W

Miscellaneous

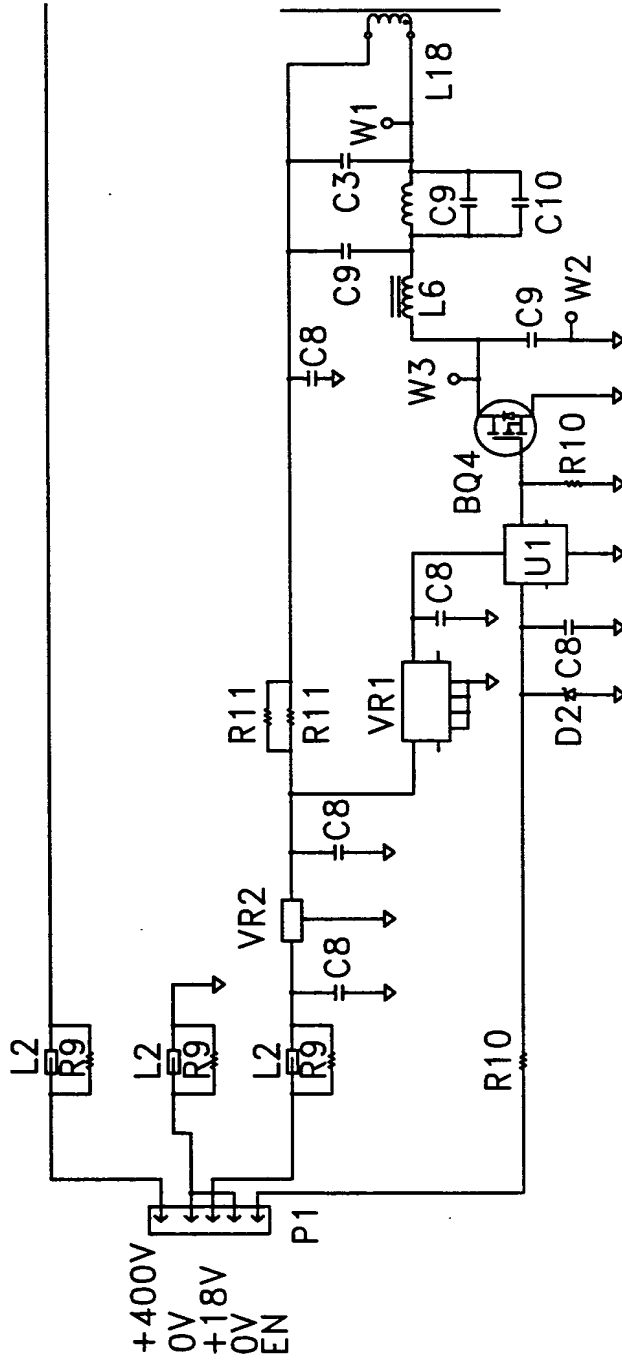
BU1:A	AD825
BU1:B	AD825
BU2	AD1585

D1	HSMS2802
----	----------

Transistors

BQ1	OPEN
BQ2	M14420T
BQ6	RFD16NO06LESM

Figure 3-12 Values



NOTES: UNLESS OTHERWISE SPECIFIED

- 1) ALL RESISTANCE VALUES ARE IN OHMS, 1/8W, SM, 1%.
- 2) ALL CAPACITANCE VALUES ARE IN MICROFARADS, 50V.
- 3) USED WITH 2305684 PCB.
- 4) ALL REF DES WITH 'B' AS A PREFIX ARE INSTALLED ON SOLDER SIDE.

Figure 3-13 Left

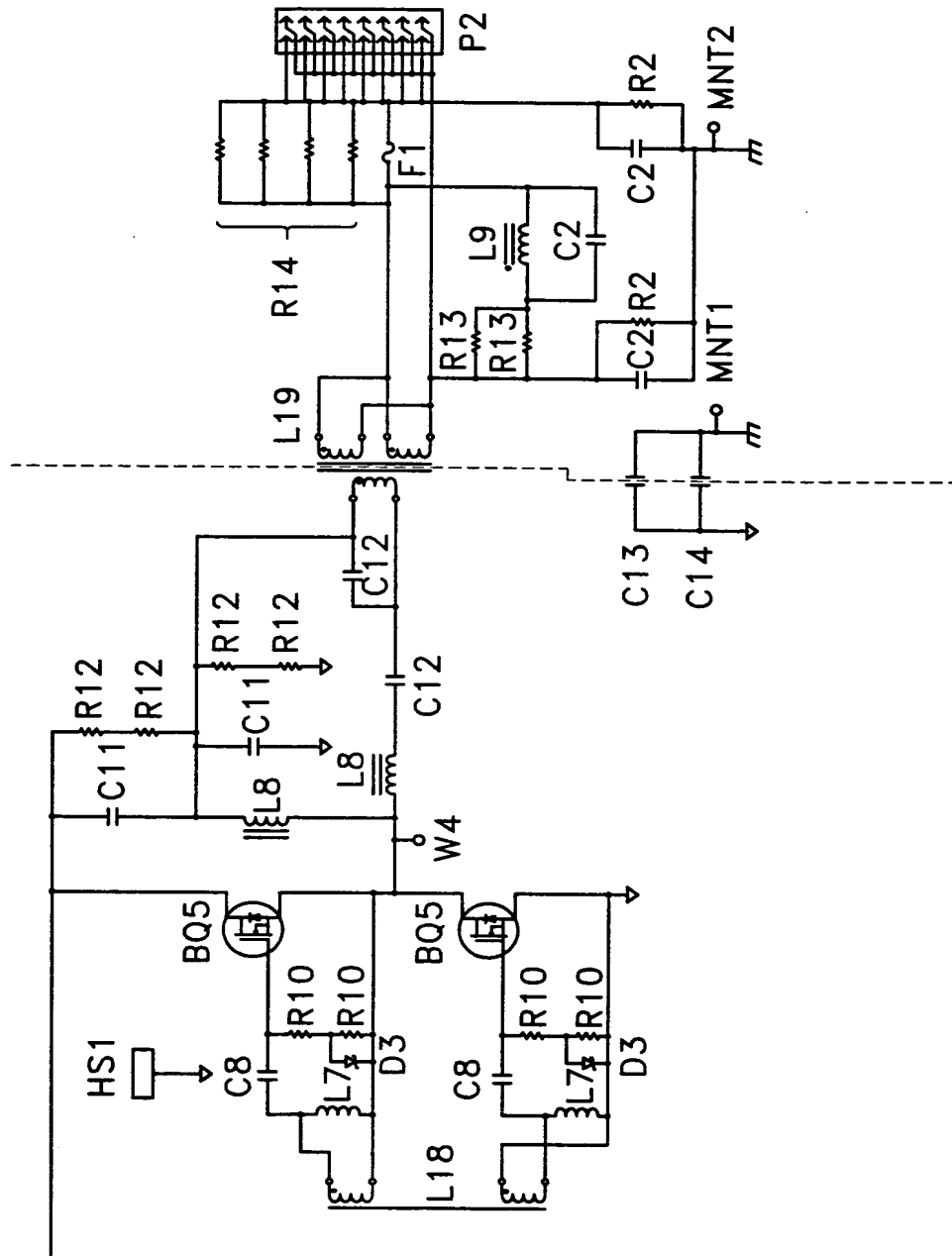


Figure 3-13 Right

Capacitors

C2	1000PF	
C3	2200PF	
C8	0.1PF	
C9	220PF	100V
C10	150PF	100V
C11	0.1PF	500V
C12	270PF	1KV
C13	OPEN	
C14	2200PF	250VAC

Resistors

R2	10K
R9	OPEN
R10	1K
R11	10
R12	200K
R13	100
R14	0

Inductors

L2	No Value
L6	5.6UH
L7	1.5UH
L8	6.2UH
L9	2.2UH

Miscellaneous

D2	5.6V
D3	_____

Transformers

L18	TRANS	T1
L19	TRANS	T2

U1	P1	E/D
	P2	NC
	P3	GND
	P4	OUT
	P5	NC

Transistors

BQ4	NDS7002A
BQ5	IRF840LC

VR1	P1	V (OUT) LM78L05
	P2, 3, 6, 7	GND
	P4	NC
	P5	NC
	P8	V(IN)

HS1	HEAT SINK
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VR2	P1	78M15CDT
	P2	GND

F1	FUSE OPEN
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Figure 3-13 Values